FREIGHT TRAFFIC ISSUE

What Shippers Say About Containers... p. 19

July 25, 1960

RAILWAY AGE *weekly*

Now, B&O tries 'wheel-less' trailers... p. 23

Lasher Charts Car Line's Growth

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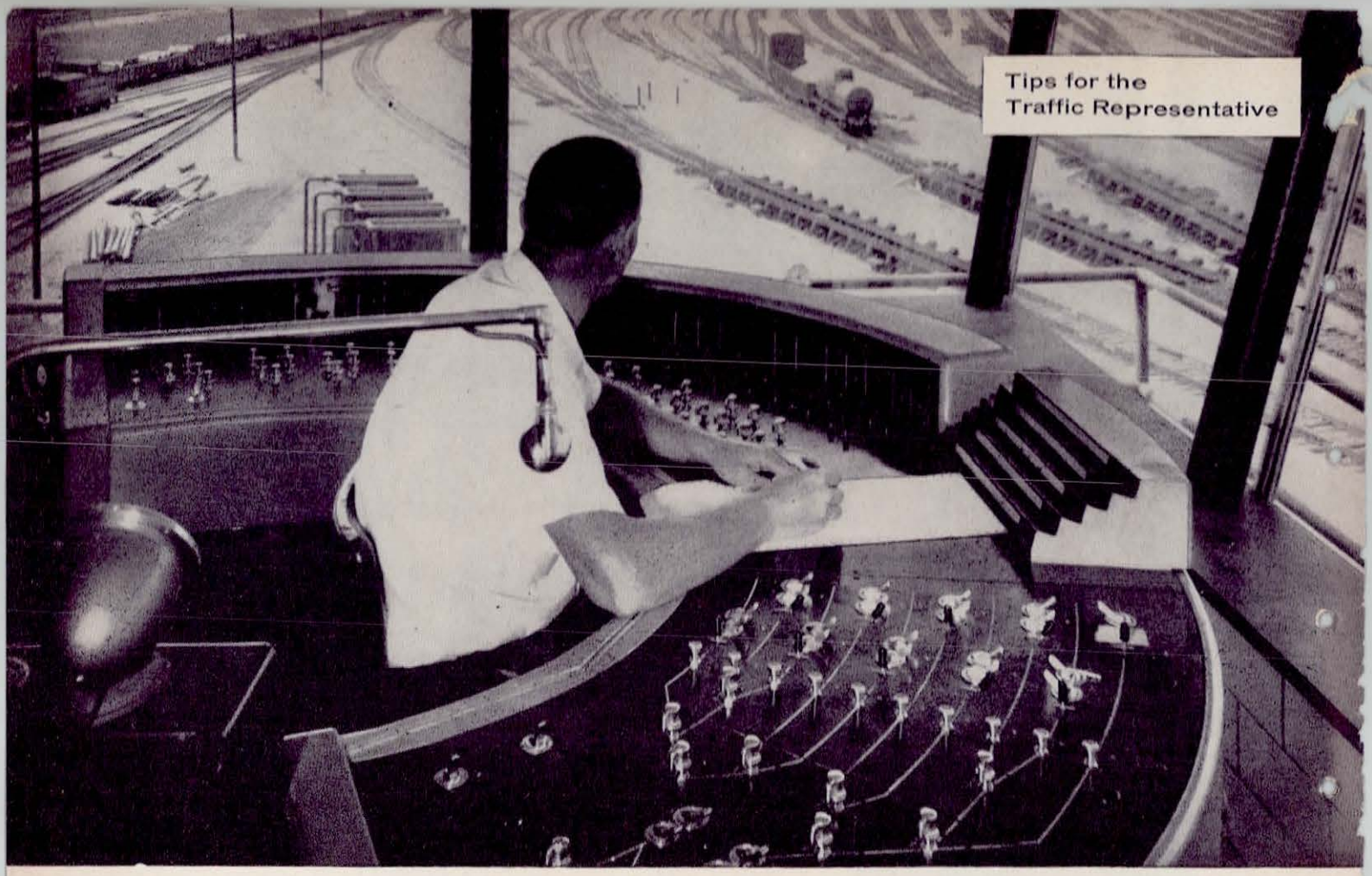

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Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.

Published weekly by the Simmons-Boardman Publishing Corporation at 440 Boston Post Road, Orange, Conn. Second-class postage paid at the Post Office at Orange, Conn. James G. Lyne, chairman of the board; Arthur J. McGinnis, president and treasurer; Duane C. Salisbury, executive vice-president; George Dusenbury, vice-president and editorial and promotion director; Robert G. Lewis, Joe W. Kizzia, M. H. Dick, M. J. Figa, R. C. Van Ness, vice-presidents.

GN, NP approve unification plan .....p. 9

The proposed merger—which would also include CB&Q and SP&S—would create a 25,000-mile road operating in 17 states and Canada. The plan is expected to go to shareholders for a vote by year's end.

Examiner OK's B&O Plan IV p.14

Recommending approval of the road's controversial piggyback plan, ICC Examiner Dunn takes note of the "bold thinking and experimenting" that pervade the transportation field today, and asserts that "blind adherence to precedents, or to cost formulas . . . simply will not do."

Cover Story—What shippers say about containers p.19

Many shippers could use some form of "universal" freight container, according to this month's Traffic Poll. But, the Poll indicates, it isn't likely that containers will entirely replace conventional equipment.

Cover Story—B&O tries 'wheel-less' piggyback p.23

Mixed movement of wheeled highway trailers and wheel-less containers for both rail and road transport may soon be commonplace. The B&O has become the first eastern railroad to inaugurate such a service.

Cover Story—Lasher charts car line's growth p.32

North American Car Corporation, says its president, E. C. R. Lasher, has broadened its scope by moving from the purely transportation phase of logistics into the general field of distribution. Here, in an exclusive interview, are Gen. Lasher's trenchant comments on the future of U. S. transport.

How to keep industrial railroads safe p.40

Accidents to personnel and property on in-plant industrial railroads can be eliminated. This article is the first of a Railway Age special series which has been abstracted from papers prepared by a major industrial insurance company.

Board rejects radio arbitrary p.67

An emergency board has recommended that the BLE withdraw demands for an arbitrary payment to engineers operating locomotives equipped with radio telephones. Grand Chief Guy Brown says the board's report is "about as unfair as it can be."

The Action Page—Five steps to increase traffic p.70

All the steps are of equal importance. Used in combination, they would give railroads the volume of freight, and the earnings, to which they are entitled.

Short and Significant

Passenger fare boosts . . .

ranging from 2.29% to 5% have been requested for 15 eastern railroads, effective Sept. 1. Increases will not exceed $1 for one-way coach and $2 for one-way first class fares, according to A. J. Winkler, chairman of the Trunk Line Central Passenger Committee, who filed the request with the ICC. Railroads involved: B&O, B&A, C&O, DL&W, Erie, GTW, Monon, NYC, NKP, N&W, PRR, Pennsylvania-Reading Seashore Lines, P&LE, Reading, and Wabash.

Traffic executives of the three territories . . .

met in Chicago July 20 to discuss various proposals which have been made for increasing revenues from freight service. Suggestions mainly involved accessorial services and some items of traffic now being handled below cost. No conclusions were reached as to any of the proposals and the meeting was recessed to permit further study of the situation.

Joint rail-water rates for coal . . .

published by the C&EI and lake carriers should not have been cancelled by ICC's Division 2, a C&EI petition before the full Commission charged last week. In the petition, C&EI said cancellation of the rates last May was "beyond the authority of the Commission in a case involving initial rates." Division 2's decision was also charged with holding up the joint rail-water rates to protect the traffic of other modes of transportation contrary to the provisions of the Interstate Commerce Act.

Passenger-train piggybacking . . .

of milk in tank trailers is planned by the Lackawanna. The road is acquiring 10 G-85s from North American's NITX pool. Cars, scheduled for September delivery, are being built by General American. Lackawanna will move the traffic under a Plan IV piggyback tariff.

Use of 'double-bottom' highway trailers . . .

on the Interstate System of Highways is now under study, Commissioner Ellis L. Armstrong of the U.S. Bureau of Public Roads told the Truck-Trailer Manufacturers Association.

Week at a Glance CONT.

Current Statistics

Operating revenues	
5 mos., 1960 ...	$4,064,090,155
5 mos., 1959 ...	4,125,693,993
Operating Expenses	
5 mos. 1960 ...	3,195,545,311
5 mos., 1959 ...	3,229,846,918
Taxes	
5 mos., 1960 ...	450,170,907
5 mos., 1959 ...	438,663,308
Net railway operating income	
5 mos., 1960 ...	273,263,468
5 mos., 1959 ...	324,315,344
Net income estimated	
5 mos., 1960 ...	195,000,000
5 mos., 1959 ...	234,000,000
Carloadings, revenue freight	
27 wks., 1960 ..	16,146,081
27 wks., 1959 ..	16,820,701
Freight cars on order	
June 1, 1960 ..	36,106
June 1, 1959 ..	36,869
Freight cars delivered	
5 mos., 1960 ...	25,360
5 mos., 1959 ...	14,322

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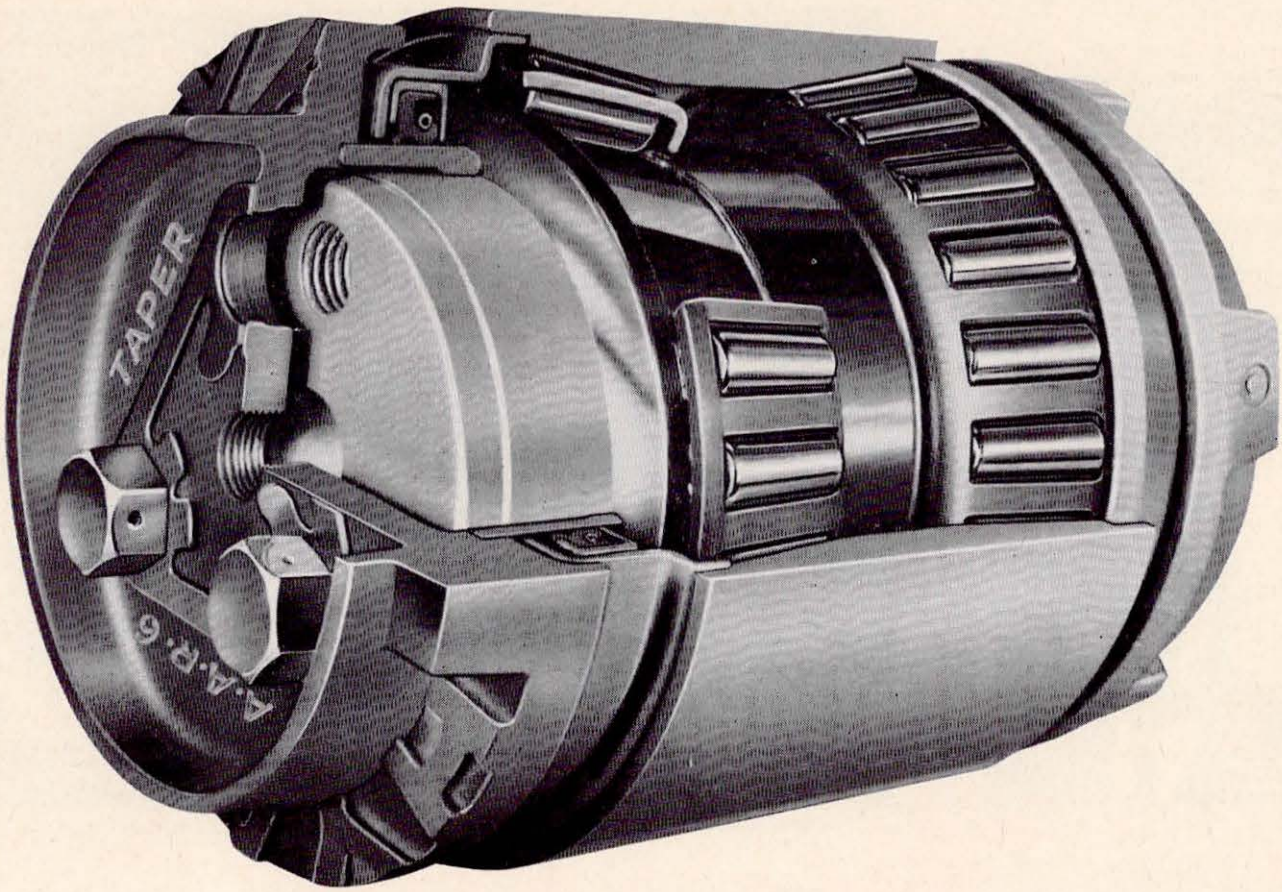

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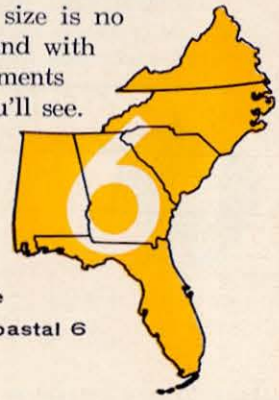
General headquarters and warehouse, Publix Super Markets, Incorporated, Lakeland, Florida

Groceries by the Carload

It takes a lot of everything to run a modern super market chain. A bare look at some of the statistics describing Publix Super Markets, Incorporated, of Lakeland, Florida, proves this.

Last year Publix grossed $110 million in sales from its 57 stores located throughout Florida. Just to operate and support these stores requires over 2,700 employees and a central supply warehouse containing nearly 300,000 square feet of space. The present warehouse at the company's Lakeland headquarters was built only ten years ago but already has had to be enlarged six times. Its loading dock can accommodate 30 truck trailers while 22 railroad cars can be handled simultaneously on three nearby sidetracks.

During 1959 Coast Line alone placed nearly 3,000 carloads of food for Publix. Coordinating shipments of this size is no easy job, but Coast Line knows how to do it—and with speed and efficiency. It's the way we handle shipments for all our customers. Ship by Coast Line and you'll see.



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GN, NP Approve Unification Plan

► **The Story at a Glance: Shareholders and the ICC willing, the nation will see a new giant of transportation gradually take shape over the next five or six years. Great Northern and Northern Pacific directors have climaxed four years of investigation and negotiation by approving a unification plan which would also include Chicago, Burlington & Quincy and Spokane, Portland & Seattle.**

The resulting system would operate almost 25,000 miles of road in 17 states and two Canadian provinces. From a mileage standpoint, it would tower above any existing system—or any other merger now under active consideration. On a gross revenue basis (1959 figures), the GN-NP-CB&Q-SP&S combine would trail PRR and NYC—but it would be No. 1 in net income.

After a four-year courtship, with many ups and downs, the bans have been read for the Great Northern-Northern Pacific marriage. Now it's up to such assorted groups as the stockholders, the Internal Revenue Service and the Interstate Commerce Commission to give the union their blessing.

Present plans call for submission of the unification proposal to the shareholders by the end of 1960. If GN and NP follow the practice of most other merging roads, they'll file a submission with the Commission at about the same time or earlier in order to get the matter on the docket quickly. And, in the meantime, the roads will go to the IRS for approval of certain income tax aspects of a proposed preferred stock issue.

Among the highlights of the unification plan:

- Exchange of stock ownership (as between GN and NP) would be on a share-for-share basis. GN stockholders would receive in addition one-half share of 5½%, non-voting preferred stock of $10 par value for each share held. The preferred would be callable, would have a mandatory sinking fund provision. "Equitable provisions" would be made for minority Burlington shareholders. (GN and NP have equal ownership of 97.18% of CB&Q's common and jointly own SP&S.)
- Management of the new company "would be shared equally" by present presidents of the parent lines. NP's Robert S. Macfarlane would become chairman of the board, GN's John M. Budd would become president. Harry C. Murphy, Burlington president, would become vice chairman of the board of the unified company. The directorate would consist of members of the GN, NP and CB&Q boards. Officers of all four lines (including SP&S) would have management assignment in the new company. (One thing stands out about the management team which would run the show: All three men chose their corporate affiliation early—and stuck with it. Mr. Macfarlane never worked for any railroad but NP; John Budd, son of former GN and CB&Q President Ralph Budd, was away from the GN only during a two-year stint as C&EI president; Mr. Murphy held part-time jobs with the M&StL early in his career, but came to the Burlington to stay in 1914.)
- Eventual operating savings, according to a 1956-57 study now being updated, would approximate $40 million a year, before taxes. Unified operation "would result in a railway system which would be more efficient and provide even better services to the vast region to be served by the new system. The integrated properties would comprise a dynamic new transport system and construction of new facilities at many points will further improve the

(Continued on page 12)

Management Team

Robert S. Macfarlane—attorney, former prosecuting attorney, former county superior court judge—joined NP as assistant western counsel in 1934. At 61, he's been president of NP for nine years. He'd become chairman of the unified property.

John M. Budd, 52, president of GN since 1951, would become president of an independent railroad for the third time. After working up through GN's operating department, he went to C&EI as president in 1947, returned to GN in 1949 as VPO.

Harry C. Murphy, 67, has headed Burlington, C&S and FW&D since 1949. He came up through the engineering department, was vice-president—operation four years before he became president. He'd be vice chairman of the unified company.

B&O Favors Three-Way Merger

The Baltimore & Ohio, reluctant to choose between two suitors, indicated last week that it would like to unite with both.

At a July 20 meeting, the B&O board authorized President Howard E. Simpson to "initiate discussions with the presidents of the C&O and the New York Central looking toward a solution of the present seeming impasse by the negotiation of a three-company merger."

The "impasse" came about when the NYC and C&O made separate offers to B&O shareholders in an effort to acquire control of the road.

NYC President A. E. Perlman was reported to be "delighted" with the B&O board's action. C&O President Walter Tuohy issued a statement in which he called a B&O-C&O alliance "a reasonable, accomplishable step at this time."

"An alliance of C&O's financial strength and earning power with Baltimore & Ohio's potentialities will be in the best interests of both railroads' shareowners, employees, shippers, communities, the railroad industry and the nation," asserted Mr. Tuohy.

The text of a letter sent by President Simpson to B&O stockholders outlined the dilemma the B&O board faced—and its proposed solution:

"On June 1, 1960 I wrote you about the proposal of the Chesapeake & Ohio Railway Co. to offer you the opportunity, subject to certain conditions, to exchange your B&O stock for C&O stock, and told you that B&O's president and directors had voted that such proposal be favorably recommended to B&O stockholders.

"Subsequently, the New York Central Railroad Co. has offered to the B&O common stockholders the opportunity, subject to certain conditions, to exchange up to 1,550,000 shares (about 50%) of their B&O common stock for NYC stock plus cash. This

(Continued on page 14)

Watching Washington *with Walter Taft*

Mr. Taft is on vacation. During his absence, this column is being written by other members of the staff.

• **THE ICC SEEMS TO AGREE** with the adage that there's more than one way to skin a cat. It has found a way to get dormant water-carrier operating rights canceled—despite its lack of authority (which it is seeking from Congress) to revoke such certificates and permits for non-use.

THE WAY is to approve acquisition of dormant rights by water carriers which plan to surrender them for cancellation. Its first use is in a decision (in MC-F-6245) approving purchase by Sea-Land Service of Agwilines' dormant rights to operate as a common carrier on Atlantic and Gulf of Mexico coastwise routes.

THE DECISION, by the entire Commission, reverses a prior report by Division 4. The division said it could not clear, as "consistent with the public interest," a transaction arranged solely to forestall institution of competitive service at some future time.

THE RAILROADS urged disapproval of the transaction, saying it could not be squared with "numerous" precedents established in acquisition cases. The Commission, however, saw "no reason why applicants, who have proceeded in a lawful manner, should not be allowed to accomplish their objective, which has been shown to be consistent with the public interest."

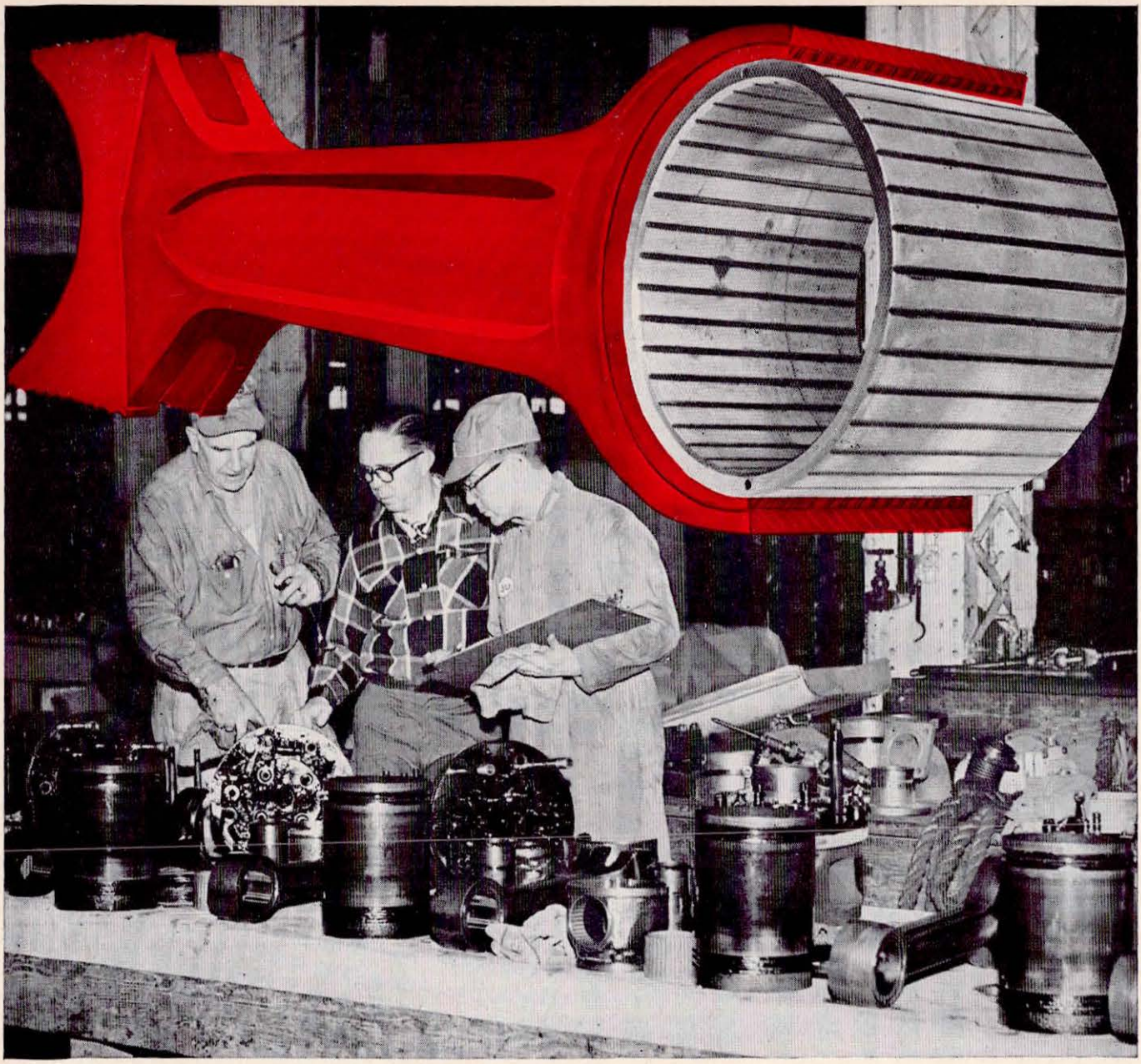
• **ERIE-LACKAWANNA MERGER** proceedings continue to move. Oral arguments were presented last week in a one-day hearing before the full Interstate Commerce Commission. The only remaining step in the proceedings will be the Commission's official decision.

ORAL ARGUMENTS were devoted to a defense of Examiner Hyman J. Blond's recommendation favoring the merger (RA, April 4, p. 9) by Erie-Lackawanna attorneys and to exceptions to the report by attorneys representing the opposition (including Nickel Plate, New York Central, Railway Labor Executives' Association and a minority group holding less than 1% of DL&W stock).

HOPE FOR A FAVORABLE DECISION before September was expressed by Presidents Harry W. Von Willer and Perry M. Shoemaker of the Erie and the Lackawanna, respectively. A point suggesting that an early decision might be expected was the Commission's action in granting the Erie-Lackawanna request for an immediate hearing by the full Commission, skipping the customary procedure of a hearing by Division 4 between the examiner's report and the hearing before the entire Commission.

URGENCY of the Erie-Lackawanna request was stressed by Erie General Counsel M. C. Smith. "Without merger," he said, "the condition of these roads is critical and alarming." He said Erie's 1959 net deficit was $5,600,000 and Lackawanna's $4,300,000. He said savings from the merger would add up to $13,000,000 within five years.

ARGUING for special conditions that would prevent diversion of traffic from his road, NKP Assistant General Counsel T. O. Broker told the Commission that $7,000,000 in traffic would be diverted, half of it from NKP. Noting that the Erie-Lackawanna savings would not be immediately available, Mr. Broker asked the Commission if it was in the public interest to have an immediate loss of $7,000,000 in revenue to one group of railroads in order to make possible future savings less than double that amount for other roads.



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GN, NP APPROVE UNIFICATION PLAN *(Continued from page 9)*

physical plant . . . planned."

- Indications are that unification would not substantially affect present employees (totaling about 65,000 persons working for the four carriers). The plan contemplates gradual integration and "management believes that natural turnover and retirements would make displacement of employees negligible."

- Neither Colorado & Southern nor Fort Worth & Denver is included in the unification plan as it stands now and reports point to no decision as yet on the status of the two properties after unification. Burlington has about 74% control of C&S and C&S holds better than 99% control of FW&D.

Among other questions as yet unresolved: A name for the unified company; location of its headquarters (GN and NP are based at St. Paul, Burlington is at Chicago and SP&S has executive offices at St. Paul and operating headquarters at Portland); and the specific definition of management responsibilities between chairman and president. Details of the operating plan haven't been announced as yet; they'll be presented in the carriers' application to the ICC.

First announcement that the roads were taking a new look at merger came early in 1956 (RA, Jan. 30, 1956, p. 13). Wyer, Dick & Co. completed an independent study late in 1957, and by mid-1958 there were indications that a unification plan (even then not including C&S and FW&D) might be ready for the shareholders and the ICC by the end of the year (RA, May 19, 1958, p. 7). But from then on, talks seemed to settle into a pattern of peaks and valleys—thus leading to some speculation that this most ambitious of consolidations might never come off. Action by the two boards—NP's met July 14, GN's July 15 and the announcement came July 16—ended the speculation and started the series of legal moves which the roads hope will bring approval of their plan.

All four companies involved in the consolidation have the glow of financial good health. Combined net income of the quartet last year totaled approximately $70,400,000, on gross operating revenues of about $735,700,000.

During the hot-and-cold course of merger negotiations, most signs pointed to the handling of non-rail assets as one of the major problems in arriving at an equitable stock exchange agreement. GN has considerable timber and potential natural gas resources, but NP in particular has benefited from a tremendous growth in non-rail operations. From 1958 to '59, for example, Northern Pacific showed a 25% increase in income from non-rail activities—including sale of timber and allied products and revenues from oil and gas development. Considering specifically income from nonoperating property, NP reported $9,115,847 last year; GN showed $641,101.

Taking into account the current net income showing of the four roads (GN, NP and CB&Q ranked 7th, 8th and 9th among Class I lines last year) plus the potential operating savings through unification, the marriage looks like an assured success—provided, of course, that the stockholders, the IRS and the ICC hold their peace. Twice before—late in the 19th century and during the late 1920s—GN and NP tried to get together and didn't make it. In their last effort, they got as far as the Commission, only to be met with an insistence that divestiture of Burlington control be made before any merger could take place.

This time, however, the signs are a bit brighter. Judging by the voting in other merger cases, shareholders are enthusiastic about consolidation. And the ICC itself has displayed a tolerant, even encouraging, attitude toward unification proposals in recent years.

If GN and NP succeed in getting their case before the stockholders and the Commission this year, theirs will be the third major contribution of 1960 toward re-drawing the railroad map of the West. ICC examiners will start hearing testimony early next month on two earlier propositions—merger of Soo Line, Wisconsin Central and DSS&A; and purchase of M&StL's railroad properties and assets by Chicago & North Western. Still to come: completion of studies and then a formal decision on merger of Rock Island and Milwaukee.

Piggyback: A Trucker's View

Piggyback and "changes in the ICC's rate-approval policy" may add up to "serious and continuing causes" of "subnormal" truck traffic, in the view of Philip H. Small, vice president—finance of Pacific Intermountain Express.

But, in spite of TOFC, rail rate reductions and increasing use of air freight, Mr. Small told the New York Society of Security Analysts July 15, motor carriers are confident of continuing shipper need for their services.

Mr. Small said that both PIE and its forwarder subsidiary, Pacific & Atlantic Shippers, Inc., use piggyback "to a moderate degree. We are using it for overflow, and we can use it profitably on certain segments where we have much empty return space and the railroad gives us an attractive round-trip rate for loaded one-way with an empty return. We are using the Rock Island, the Western Pacific and the Southern Pacific and, in a more limited way, the D&RGW."

He said that up to four years ago, "piggyback had not hurt us much, and I did not think it would. Since that time, however, railroads have been allowed to put in a rate of $924 to haul a two-trailer flat car between Chicago and the Pacific Coast. Our variable line-haul is about 28 cents a mile, or about $588 between Chicago and the Coast for one trailer. To the $924 car-hauling charge must be added costs or rental for use of the car and for the two trailers, but such cost will nowhere near absorb the difference between $924 and two times $588."

"What hurts," Mr. Small added, is that freight forwarders, using piggyback for westbound loads, may sublease otherwise empty eastbound trailers to shippers or shipper associations "of questionable legality" for return loads "at a good discount from tariff rates." "Truckers either have to prove that these questionable operations are illegal and get the law enforced, or get new laws passed clarifying the illegality, or live with this new intermediate service. We can live with it if we have to."

The ICC's "new policy," according to the PIE vice president, is to approve "some selective rate-cuts by one form of transportation so long as the new rate would cover out-of-pocket costs and make some contribution to other costs, and would not be lower than fully allocated cost of the competing form of transportation." He described this as "a license to the rails to cut rates to a level at which the trucker will at best break even," but expressed confidence that some shippers "will want a better long-haul service than train service at a higher price."

As to air freight: "I cannot get excited about it . . . Bearing in mind the people who are using eastbound piggyback below our present rates, although it is two days slower, I wonder how many of our customers will pay twice our present rates to move it a couple of days faster? . . . If air freight increases a modest ten fold, I suspect jet passengers, waiting for landing space between freight planes, may be even unhappier than vacation-bound automobile passengers behind a truck on a mountain highway."

Ship it Piggyback

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If there's a faster, safer, thriftier way to handle your shipments, you can count on the T & P folks using it. Take our piggyback and special Truck-Rail service, for instance. Those are the kinds of services that save you time and money by providing you and your customers with dock-to-dock transportation. Ask the resourceful T & P salesman near you for complete information and details on these money-saving T & P services.

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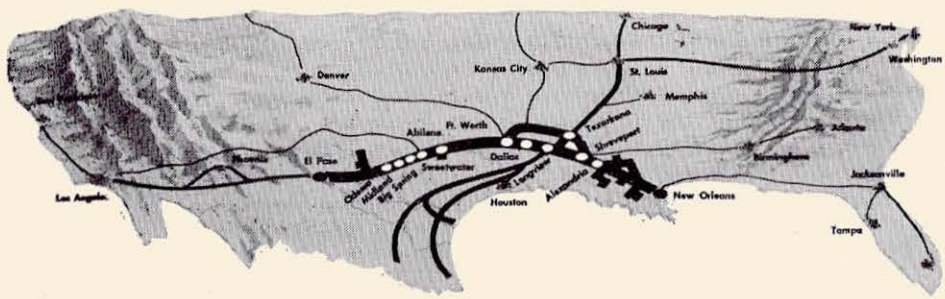

Examiner OK's B&O Plan IV

► **The Story at a Glance: Low all-commodity rates for mixed freight in containers on flat cars under Plan IV will get ICC approval if the Commission follows the recommendation of Examiner Lawrence B. Dunn that such rates be approved in a B&O tariff.**

The Plan IV rates, in effect since May 8, 1959, have been under investigation after protest by motor carriers. In his recommendation that the rates be found lawful and the proceedings discontinued, Examiner Dunn emphasized that it is financially more desirable to have a small unit-return from a large volume of traffic than to have no return from high, theoretically more profitable, paper rates.

Baltimore & Ohio, with piggyback limitations imposed by tunnel clearances on its Jersey City-St. Louis route, faced a serious problem of diversion of revenues. To overcome the problem, the road turned, in May 1959, to Plan IV piggyback service, using containers on flat cars. To get and hold business, B&O set reduced rates on mixed freight of all kinds, with a few exceptions, in containers on flat cars, between Jersey City, Philadelphia, Baltimore and Washington on one hand, and Cincinnati, Indianapolis and Louisville on the other.

When the rates were protested by the Eastern Central Motor Carriers Association, Eastern Express, Cooper-Jarrett, Kramer Brothers Freight Lines, Eastern Motor Dispatch and Chicago Express, the Commission began an investigation to determine whether the rates and associated rules and practices are just, reasonable and lawful. By a supplemental order, the Commission included in the investigation rates to and from the East and Columbus and Dayton, Ohio. Rates were based on 50,000 and 70,000-lb maximum weight limits.

The case, Docket No. 33021, was considered by Examiner Lawrence B. Dunn, who last week recommended that the rates in question be found lawful and the proceedings discontinued. In making his recommendation, Examiner Dunn pointed out, "In some respects this is a proceeding of first impression. At least, no case directly in point dealing with Plan 4 service has been cited of record."

The examiner went on to say that the Commission should take official notice of "the fact that the transportation industry in this country is still undergoing evolutionary developments. It is not the industry it was in 1887 or in 1935. Bold thinking and experimenting pervade it. Blind adherence to precedents, or to cost formulas, it is most earnestly submitted, simply will not do."

Examiner Dunn made it clear that his recommendation was based on his finding that the protested low rates brought in revenues up to 37% over out-of-pocket costs, and so were reasonably compensatory.

The report said the primary purpose of B&O's Plan IV rates and service is to permit the road to compete on equal terms with other roads offering Plan III service, to which B&O traffic has been diverted because of its clearance problems. Both Plan III and Plan IV, though, the report continued, are "designed to attract traffic now moving either in private or regulated motor carriage."

Pointing out that private carriage in particular has "cut alarmingly into railroad traffic," the report noted that this "threat to the railroads, as well as to regulated motor carriers," had been recognized by the Commission in two recent annual reports to Congress.

On the issue of legality of Plan IV service in general, the examiner's report commented that shipper-owned or leased cars in general service have long been used and recognized as lawful. Plan IV service is a new type of service, the report said, that comes under the Commission's duty of developing and preserving transportation by each mode. Adding that shippers have not objected to the service, the report found that the Plan IV service in question, aside from the question of rates, is lawful.

On the issue of all-commodity rates as opposed to class rates, the report states: "Perhaps the time has come, now that costs have taken a greater share and weight in the determination of lawful rates, to ask whether the whole concept of classification is not in need of critical reappraisal. At least, one clear fact should be borne in mind; that with very minor exceptions, it costs no more for a railroad to haul a ton of finished steel a mile than a ton of sand a mile."

In considering the cost studies on which the railroad based its rates, and comparing them with cost studies the protesting truck lines presented, the report found: "The assailed rates, even when compared with the excessively high out-of-pocket costs as computed by protestants, exceed in every instance those out-of-pocket costs. For example, on a 50,000-lb load from Baltimore to Dayton the rate of $223.60 exceeds the cost of $181.85 by 9% (the lowest), and from Philadelphia to Louisville the rate of $328 exceeds the corresponding cost of $241.51 by 36%." The Eastern Railroads' Paint Case was cited by the report as authority that just and reasonable minimum rates do not necessarily have to cover fully allocated costs, on the theory of "maximizing the net return."

"In accepting the doctrine of 'maximizing the net return' advocated by this same respondent in *Paint and Related Articles—Official Territory,*" the report said, "the examiner believes that from a financial standpoint it is better to have a relatively small unit of return or revenue on volume movements, than to have no return at all from high paper rates that induce shippers to use their own private trucks or some other competitive mode of carriage."

THREE-WAY MERGER

(Continued from page 10)

NYC proposal, too, should be considered by B&O common stockholders.

"In the existing circumstances, the B&O president and directors are not in the position to advise B&O stockholders as to the comparative merits of the two offers or to volunteer at this time any other advice with reference to such offers. Each B&O stockholder must decide for himself, in the light of his own personal investment situation, whether he desires to accept either offer and, if so, which.

"At a meeting of the board held today (July 20), I was authorized to initiate discussions with the presidents of the C&O and NYC looking toward a solution of the present seeming impasse by the negotiation of a three-company merger."

All of this had the effect of putting the situation back where it started. Early in May word leaked out that the chiefs of the three roads had conducted "informal" talks about a three-way merger, but there were already indications that the NYC might not be invited to participate in any formal discussions (RA, May 9, p. 22). This was confirmed two weeks later when the C&O made a unilateral offer to B&O shareowners which promptly won the endorsement of the B&O board (RA, May 23, p. 9). Late in June NYC made its expected counter-offer (RA, July 4, p. 9), and it was this that brought about the B&O board's action last week.

A B&O spokesman was unable to say when President Simpson would move to reopen three-way talks.

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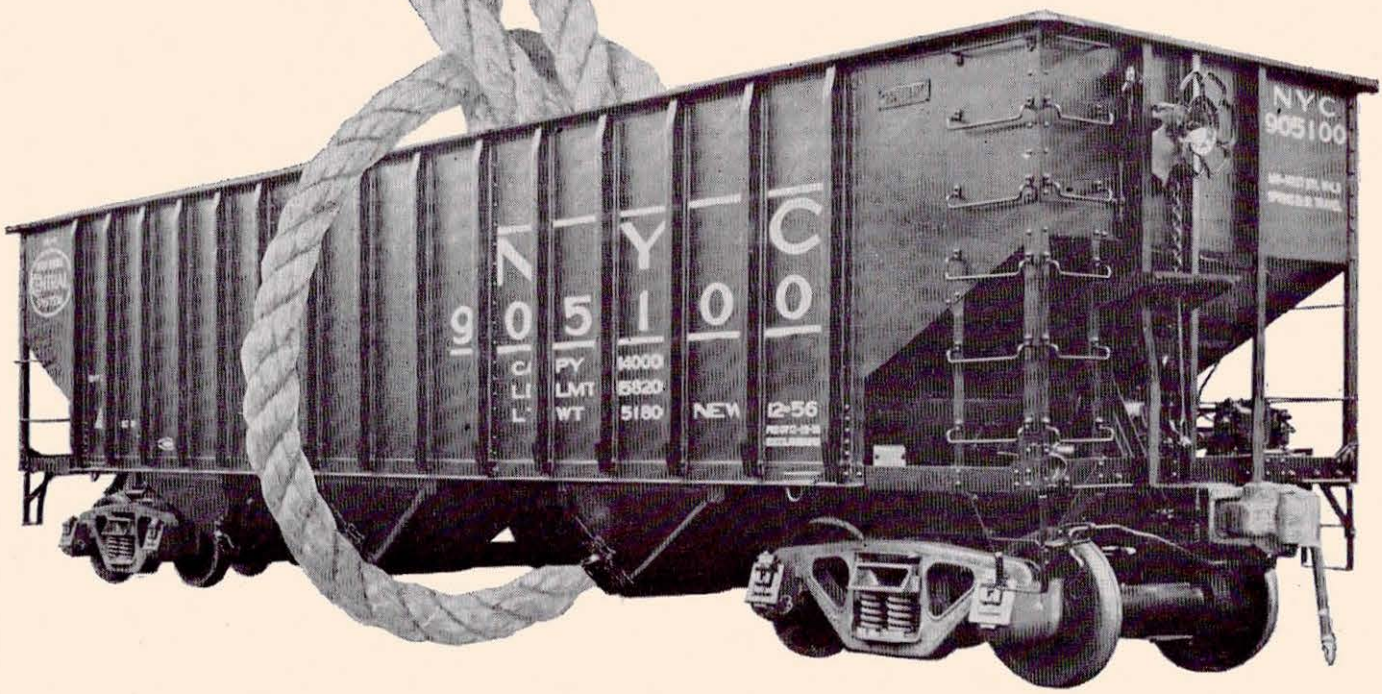

GEARED TO PROGRESS
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THE MILWAUKEE ROAD

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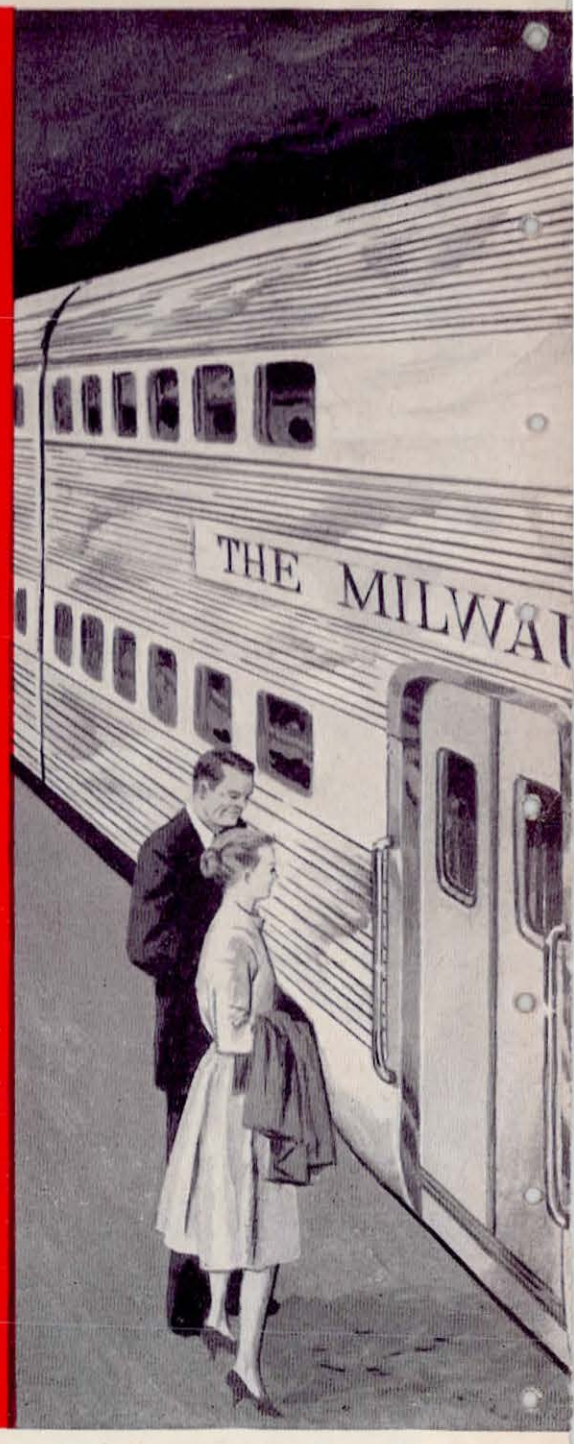
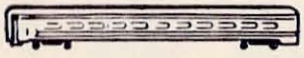
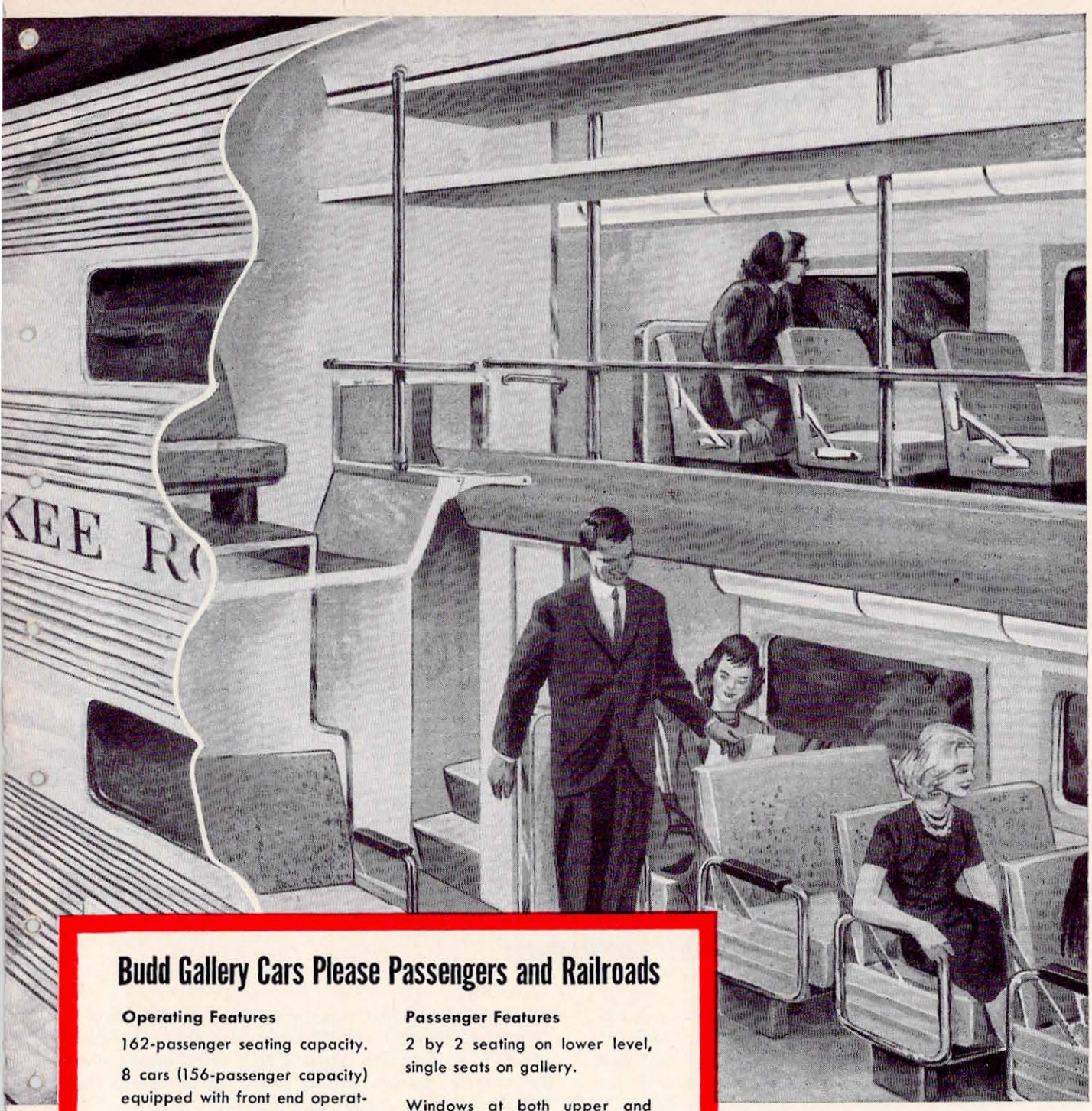




Forty air-conditioned stainless steel gallery cars, just ordered from Budd by The Milwaukee Road, will bring improved service to thousands of commuters in its fast growing suburban areas. The first major step in a complete modernization of the Milwaukee's commuter equipment, these cars will provide passengers with mainline comfort and convenience, and bring new economies to the railroad.

The two-level cars, built according to a design pioneered by Budd, will carry up to 162 seated passengers each. Their high capacity and lighter weight make it possible to carry more passengers per train consist, give fast, frequent service and lower operating costs. They never need painting, inside or outside . . . are easy to keep clean.

For today's trend back to the rails as the best way to move people between the suburb and metropolis, Budd offers a variety of modern, stainless steel passenger cars . . . including RDC-rail diesel cars, gallery cars and lightweight Pioneer MU commuter cars.



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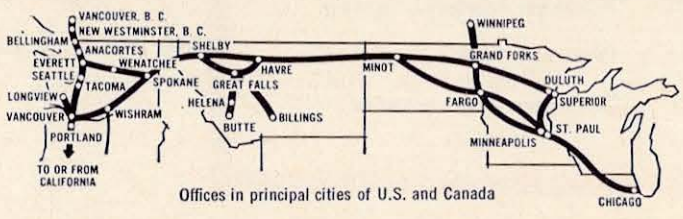
We feel these monies have been invested wisely. Not just in a series of "fix-up, paint-up, clean-up" drives—but in a carefully planned *program*. A schedule that calls for *continuous* maintenance and improvement of roadbeds and trackside facilities. It's one of many reasons why passengers enjoy smooth, comfortable travel on Great Northern streamliners—why our shippers can be assured that their freight will receive fast, dependable and careful handling.

GREAT NORTHERN RAILWAY



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How Shippers View Containers

Proposition

There is rapidly growing interest (and considerable activity) in development of some form of "universal freight container," which could be moved direct from shipper to consignee, and interchanged, when necessary, between different modes of transportation (rail, highway, water and air).

In the United States, there seems to be considerable sentiment for standardizing the size of such containers at 8 ft high, 8 ft wide, and in multiples of 10 ft long (though a good many of those now in use are of different dimensions). There is, however, no corresponding degree of agreement on other features of such containers. At least one manufacturer now engaged in their development has suggested to Railway Age that it would be helpful to find out what shippers want. The questions in this month's Poll are an outgrowth of that suggestion.

Questions

1) Would you, as a shipper, be able to use some form of universal, interchangeable container?

Yes	42
No	28
Uncertain	6

2) Would the proposed standards (8 ft by 8 ft, with lengths in multiples of 10 ft) be satisfactory?

Yes	34
No	4

3) If not, what sizes would you prefer?

See accompanying text.

4) Would you prefer to load and unload such containers:

Through end doors?	25
Through side doors?	15
Overhead (through roof)?	3
Manually?	7
With lift trucks?	33
By other means?	3

5) Who, in your opinion, should own and control such containers?

Shippers	3
Carriers	43
Pooling or leasing agencies	8

More shippers than not think they could use some form of "universal" freight container which could be moved directly to consignees by, if necessary, two or more different modes of transport. Some shippers are avowedly enthusiastic about the possibilities of containerization, both for themselves and for carriers.

Answers to this month's Poll clearly indicate, however, that:

- Containers aren't likely, at least in the foreseeable future, to replace conventional rail (or highway or steamship) equipment for movement of bulk freight or of odd-sized and odd-shaped shipments.
- Containers, if they are to catch on, must be supplied primarily by carriers—not, except under special circumstances, by shippers.

This question of ownership, though last on the Poll, is probably the most important, because it relates most directly to the economic factors which, in the end, are likely to do more than any technical considerations to make containerized shipping a reality or keep it a dream.

As the tabulated replies show, there is almost no sentiment for direct shipper ownership of containers. Nearly everyone thinks that responsibility rests directly on the carriers or, alternatively, on pooling agencies which would lease them to carriers. Several men would accept either method. There "should be two sources of supply," says E. J. Davis, director of traffic, Caterpillar Tractor Co., Peoria, Ill.

Carrier Ownership Preferred

The preference for carrier ownership was explained in various ways. It's necessary "in the interest of interchangeability and maximum utilization," according to B. P. Bergen, assistant traffic manager, American Sugar Refining Co., New York. D. C. Ward, traffic manager of Hoerner Boxes, Inc., Keokuk, Iowa, feels that:

"Containers are similar to tank cars, or any other special device which shippers use. They should be furnished by the carriers, and rates predicated on their return to the users by the carriers."

"If owned by shippers," Mr. Ward adds, "the trend would be to try to secure rates on the basis of free return, as well as the outbound rate being based on net weight." (Container rates, he feels, must take into account gross weight hauled and cost of return; otherwise, "a discriminatory situation would be set up against shippers who continue to use crates and boxes.")

L. H. Martin, general traffic manager of Gould National Batteries, St. Paul, agrees that "carriers could furnish containers in much the same manner as they now provide other specialized equipment." In practice, he suggests, containers could be leased from manufacturers, with the various leasing carriers keeping records of their movements and assuming responsibility for their return.

Mr. Martin, however, goes on to suggest that, "in the case of regular movements, shippers could own their own containers and receive some special rate for their transportation, as provided under Plan III piggyback."

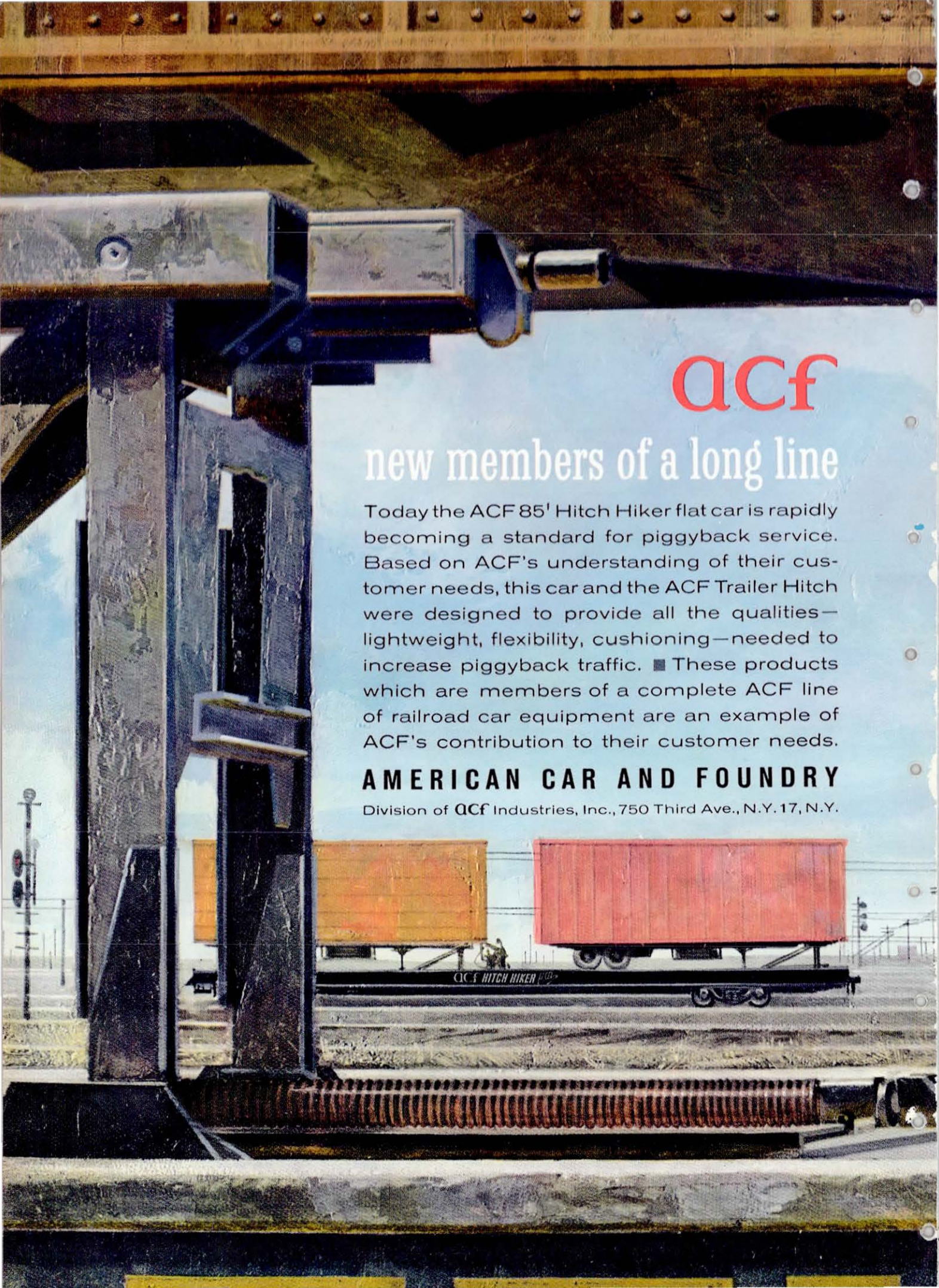
Somewhat similarly, R. L. Andreas, manager, traffic department, Standard Oil Co. (Indiana), says: "We feel very strongly that carriers should either own the containers, or acquire them by leasing. In our opinion, they could profitably form a large pool from which all could draw, thus achieving optimum use of equipment and at the same time insuring availability." "There is," Mr. Andreas adds, "some possibility that certain shippers (including his own company) might wish to own and control a few containers for specialized use, i.e., avoidance of contamination, storage within plant, etc."

Frank Otis, traffic manager, Gilbert Paper Co., Menasha, Wis., thinks container-owning carriers might work out leasing or contract arrangements with shippers. And A. C. Roy, director of traffic for Pennsylvania Glass Sand Corp., at Pittsburgh advances an interesting idea for a possible dual basis of ownership.

"Shippers using containers, or pooling or leasing agencies, should own and control containers were they to leave rail or truck carrier premises," Mr. Roy says. But "carriers should own containers where the container stays with, and is considered part of, either the carrier trailer or car."

He makes this additional point: "With free interchangeability between modes of transportation, the possibility of containers going astray and limitations of use would seem to indicate a severe financial burden on owning carriers in accounting procedures to keep records of container locations. If containers result in an over-all transporta-

(*Continued on page 22*)



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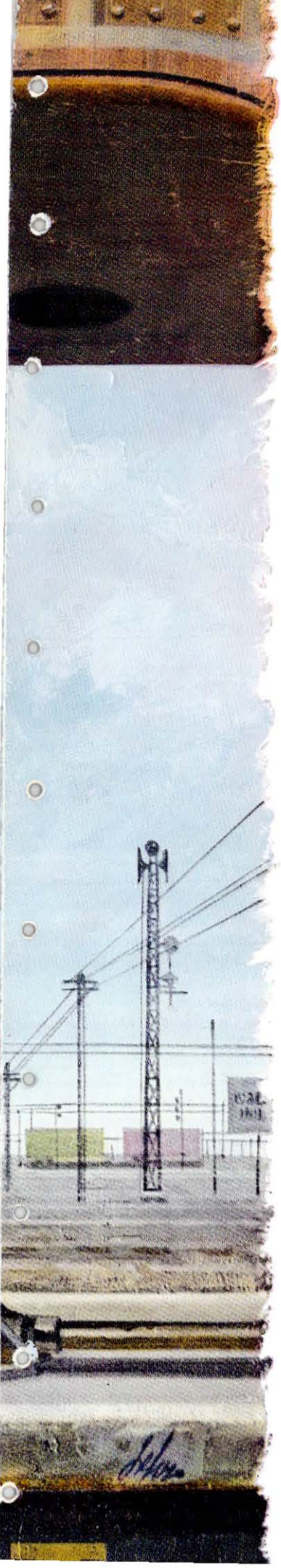

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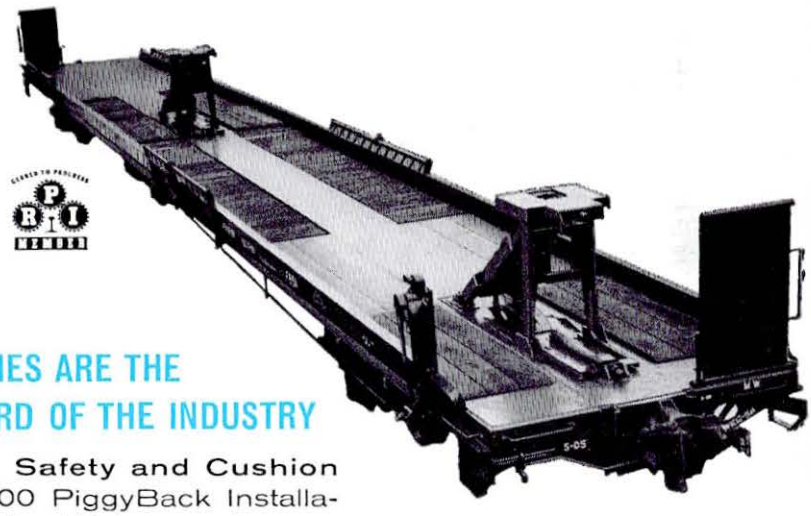

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Speed: One man, using only an air or electric power wrench, does the work of two three-man crews . . . raising and locking the hitch in less than 3 minutes.

Safety: All operation is from the end . . . no need to get under the trailer . . . no chocks, chains or other loose parts to cause hazards.

Cushion protection: Secure tie-down fully protects trailer and lading. 40,000 foot-pounds of cushioning (more than any standard freight car) with a maximum horizontal travel of 22¼ inches guard against impacts.

tion saving to users, then the parties making such savings should pay for and control containers."

Southworth Lancaster, Boston transportation consultant, also advocates a possible dual basis of ownership. "Where a shipper can count on a two-directional movement," he says, "direct ownership is an advantage . . .Otherwise, carrier ownership is preferable. In any event, there should be a central agency to control and distribute containers to hold empty mileage to the minimum. In deciding this point, the container should be regarded exactly the same as a box car, since the same principles govern."

Size Standards Okay

Turning to technical questions concerning the containers themselves, nearly all shippers express general satisfaction with the proposed standard sizes —8 ft wide, 8 ft high and 10, 20 or 40 ft long. Some men say they would not be interested in any containers shorter than 20 ft; and there are individual suggestions for lengths of 8, 8½, 30 and 36 ft; widths of 7½, 8½ and 9 ft; and heights of 7 and 10 ft. (Some of these widths would not, it is conceded by those who advocate them, comply with existing state highway regulations.)

Only two men disagree completely with the suggested standards. One is not far off; the other—an LCL-LTL shipper—prefers much smaller units.

Lift trucks are favored by a wide margin as the best way of putting freight into and getting it out of, containers—which means that, if shippers are to be satisfied, container floors must be made strong enough for lift-truck operation. The only other suggested loading methods, except manual, were by cranes, hand trucks and conveyors —each of which drew a single vote.

Most shippers indicate a preference for end doors, but a substantial number would like side doors—or both side and end openings. Preference for overhead loading, through some type of sliding or movable container roof, was much smaller than was anticipated.

Howard Pollen, traffic manager, P. Ballantine & Sons, Newark, N.J., suggests, however, that fork-truck loading through either side or end doors will be much more efficient if the containers also have full-length overhead sliding doors or roofs.

Mr. Lancaster, quoted above, points out that "container doors must be large enough to admit any package that the container can accommodate." "This point," he says, "has been overlooked in some designs."

Other Poll respondents submitted individual suggestions on container design. If a container is to be truly universal, writes J. A. Avery, traffic manager of American Maize Products Co., Roby, Ind., it "should be capable of being loaded in many ways, and also of being unloaded through a bottom opening. It should be able to carry both packaged and bulk goods."

"For bulk shipments, there should be tight hinged ends for quick unloading," says W. B. Knorst, assistant director of transportation, International Minerals & Chemical Corp., Skokie, Ill. Perishable shippers, like F. J. Forrai, traffic manager, Patrick Cudahy, Inc., Cudahy, Wis., apparently see little use for containers until and unless "some method of refrigeration is developed."

Not Suited to All Traffic

Other shippers, too, question the present applicability of containers to their particular types of business, particularly where it involves bulk freight or "special orders" of odd shapes and sizes. This group includes men dealing with such varied commodities as chemicals; alcoholic beverages; grain; coal; lumber; flour; sugar; oil and oil products; sand and gravel; wallboard; paint; machinery; boats; rugs and carpets; and iron, steel and non-ferrous metal products. "Our products are too varied," says G. O. Reichard, traffic manager, Mueller Brass Co., Port Huron, Mich. "Every shipment is a 'special'," agrees M. A. York, TM, E. W. Bliss Co., Salem, Ohio.

"The proposition wouldn't fit the bulk grain business unless containers were larger than specified, and then could be used for return loads from unloading points to origin elevators," E. E. Wyatt, consultant for Houston's Continental Grain Co., writes. W. D. Ohle, general traffic manager Sinclair Refining Co., New York, doesn't think containers would suit his company's method of shipping—except as piggyback can be considered a container. And R. F. Porter, traffic manager, Barreled Sunlight Paint Co., Providence, R.I., believes paint shipments are too diversified in size, weight and container types to be efficiently handled in large universal containers.

Opinion on container practicability, however, is anything but unanimous. One sugar company, for example, thinks it couldn't use containers; two think they could. One alcoholic beverage distiller says "No"; one—and three brewers—say "Yes." Two metal products distributors are interested in containers; five are not.

The weight of opinion, however, leans toward the view that containerization will be more fully developed. R. G. Scearce, traffic manager, Apple Growers Association, Hood River, Ore., believes, for example, that "it will be a factor in shipments before long." T. R. Atchison, director of transportation, Ralston Purina Co., St. Louis, says, "We have not developed a definite need for this type of container, but for cereal and sanitation products distribution I'm sure the need will arise in time. There must be a large number of commodities now moving in box cars which could be moved faster and with less damage in the suggested containers."

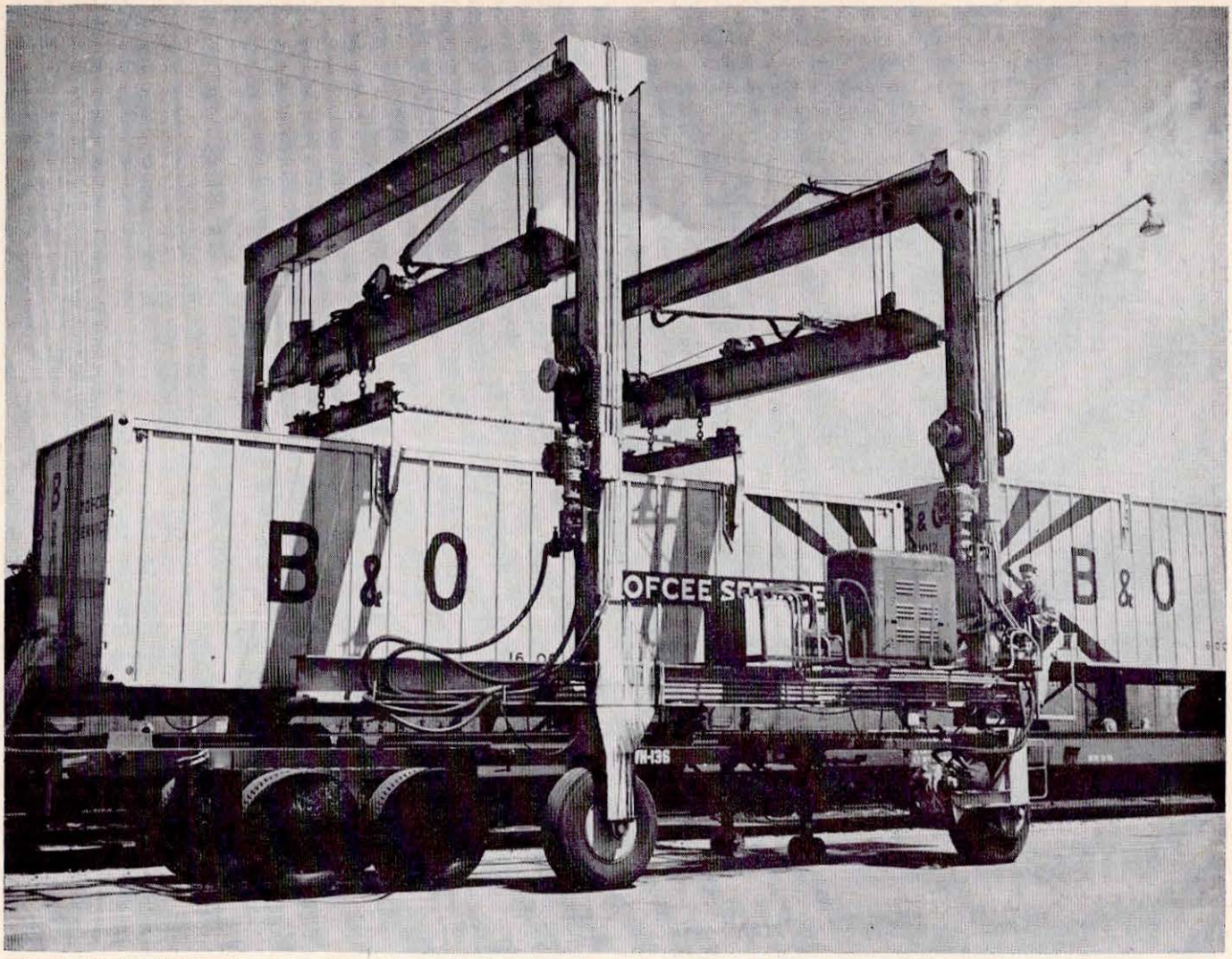
J. J. Manning, traffic director of Independent Lock and Lockwood Hardware Manufacturing Cos., Fitchburg, Mass., is even more enthusiastic. "As the age of speed and competitive marketing is upon us, it appears the time is very near when all forms of transportation will be using containerization. The present high cost of transportation is affecting manufacturing all over the country, more today than ever before. I feel, once inaugurated by all types of carriers, containerization will be here to stay, with the ultimate result of improved service and reduced rates."

Rates, other men agree, may hold the key to future progress of containerized freight. "Containers would naturally eliminate man-hours for shipper as well as carrier," thinks G. V. Foley, TM, Electric Steel Foundry, Portland, Ore. Then he suggests that, "as an incentive, the carriers could publish more attractive charges on multiple minimum shipments in this type of container."

H. P. Gabriel, general traffic manager, Hershey Chocolate Corp., Hershey, Pa., also covers rates in his observation that "the advantages of loading containers will depend on the cost of returning them to point of origin and rate structure on outbound shipments." The field, he adds, is a big one, which will bring different problems to different shippers; they must, he implies, see savings ahead if they are going to spend time and money to solve those problems.

•

[*Note*—The Poll purposely omitted any question as to how containers themselves should be moved on to, off of or between carrier vehicles (i.e., by crane, fork truck, roller device, etc.) because: (1) That appears to be primarily a carrier rather than a shipper responsibility; and (2) there appears to be increasing sentiment, among manufacturers, to standardize on overhead crane lift.]



DEMOUNTABLE TRAILER BODIES, moved on special flat cars and highway chassis, supplement Baltimore & Ohio's conventional wheeled-trailer "Tofcee" service. "Demountable body" operation reaches five cities; Tofcee, 18.

B&O Begins 'Demountable' TOFC

► **The Story at a Glance: With recent inauguration of "demountable body" freight service, the Baltimore & Ohio has become the first eastern railroad to tackle what may soon be commonplace—mixed movement of wheeled highway trailers and of wheelless containers designed both for rail and road transport.**

The new B&O operation—though still available only on a limited basis—serves a triple purpose.

- **It supplements the railroad's rapidly expanding conventional "Tofcee" (piggyback) service.**
- **It will give operating experience with a new brand of coordinated service which eliminates the space and weight of a conventional wheeled highway trailer.**
- **It meets certain clearance limitations which had hindered Tofcee's full economic development.**

For the first time on an eastern railroad, "demountable bodies"—wheelless freight containers of highway trailer size—are moving regularly on the Baltimore & Ohio.

The B&O likes them. It finds them a useful means of interchanging freight with some western carriers and a valuable adjunct to its own wheeled piggyback ("Tofcee") service. As a result, early and perhaps substantial expansion of the new and still somewhat limited containerized operation appears to be a virtual certainty.

The B&O feels its containers have some advantages over conventional wheeled trailers. They can, for example, be loaded either end front; don't all have to be faced in the same direction; can be unloaded selectively, without waiting till they are reached by the "circus" method. Cars, too, can be operated in either direction for container lading.

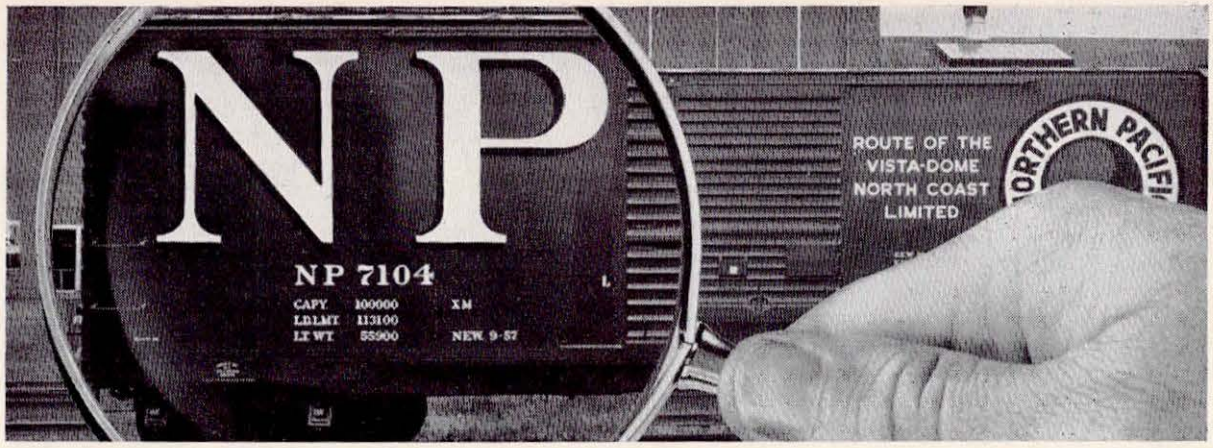
But the railroad still considers containers as a supplement to, rather than a substitute for, conventional "Tofcee." It expects to be hauling wheeled trailers for a long time to come. To emphasize that point, its "Tofcee" fleet, as of June 1, stood at 397 wheeled trailers of nine different sizes and types; 376 trailer-carrying B&O or Trailer Train flat cars.

"There isn't," B&O people modestly concede, "anything really new about our demountable body service. It's almost identical with the 'container

(*Continued on page 26*)

JUNK ON A JUNKET!

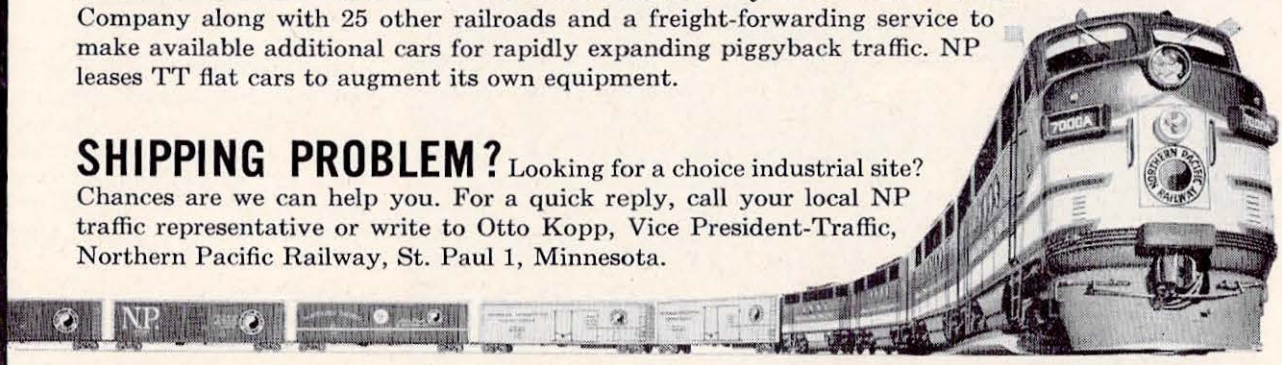
Wondering about how you can get a Chinese junk from the port in Seattle to your backyard pond? Call NP. The junk you see here, one of many now imported from the Orient, was shipped NP to the Twin Cities—then on to Michigan. No matter what your shipping problem, NP has the customized equipment to deliver the goods fast —and in ship shape!

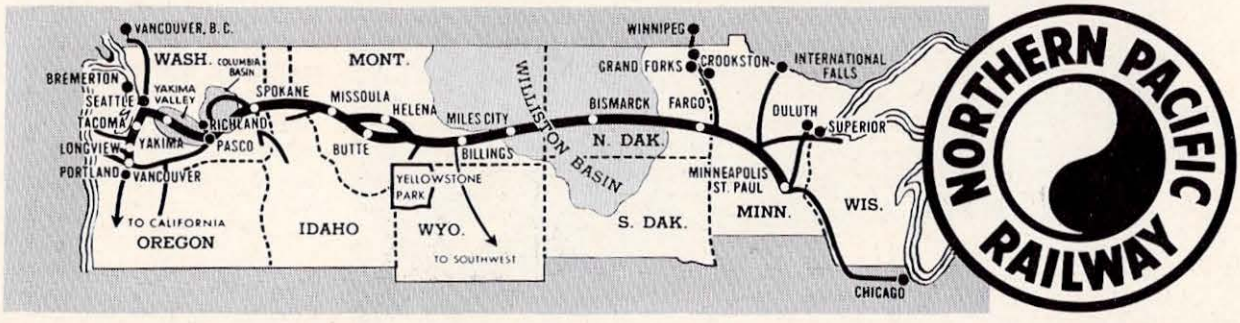


TRACKING DOWN freight shipments has long been a vital part of NP service. Now electronically assembled "Car-Tab" Reports make information available to shippers more speedily than ever. For quick, accurate information about deliveries, just call your nearest Northern Pacific traffic office. Detailed data is issued every working day.

PIGGYBACK "BANK"—Northern Pacific has joined Trailer Train Company along with 25 other railroads and a freight-forwarding service to make available additional cars for rapidly expanding piggyback traffic. NP leases TT flat cars to augment its own equipment.

SHIPPING PROBLEM? Looking for a choice industrial site? Chances are we can help you. For a quick reply, call your local NP traffic representative or write to Otto Kopp, Vice President-Traffic, Northern Pacific Railway, St. Paul 1, Minnesota.





NORTHERN PACIFIC—really terrific!

'DEMOUNTABLE' TOFC (*Continued from page 23*)

piggyback' which the Missouri Pacific began several years ago, and in which we participate on an interchange basis."

"Our present system," they add, "may not be the ultimate answer to all problems. Our minds are still open as to the possibility of further improvements." But they obviously like the way it's working so far.

Institution of the demountable body operation was sparked, in addition to the desire to save weight and space, on the B&O, by clearance restrictions imposed by tunnels on the St. Louis line.

Removal of these restrictions is being progressed rapidly through an intensive program of enlargement, "daylighting" and rebuilding. Nevertheless, until completion of that program, some conventional wheeled trailers have had to be detoured over a so-called "high car route." The wheelless containers, on the other hand, ride less than 12 ft above top of rail; make second-morning arrivals in both directions. That explains, too, why the service is presently confined to St. Louis as its western terminus.

The system involves four principal components—demountable bodies, cars, cranes and highway bogies.

The steel containers now in service are 36 ft by 8 ft by 8 ft, outside; just slightly smaller inside. With a light weight of 8,640 lb, they have a revenue capacity of 40,000 lb in 2,200 cu ft; can be loaded through double end doors. Mounted on a wheeled chassis, they comply with state limitations on height, length, width and weight of highway vehicles. For overhead-lift transfer between rail and highway, they are equipped with corner castings so that cable lift is possible.

Uses Special Cars

The "cushioned cradle" cars on which the containers ride were converted from conventional flats in the B&O's Washington, Ind., shops; handle one container each; are limited to the demountable body service. Channels for rigid container tie-down, by a mechanical vising process, are built into the cars.

Transfer facilities include 30-ton Travelift cranes at Jersey City, Philadelphia and East St. Louis, and modified gantry cranes (originally installed to handle interchanged MoPac containers) at Baltimore and Washington. Shop cranes can be used in case of emergency.

The highway chassis are simply tandem-axle wheeled underframes, 36 ft long, capable of carrying one container each in highway movement. They are virtually identical with MP's bogies; can be hauled by any standard tractor; and weigh, loaded, slightly less than a conventional trailer carrying the same shipment. Generally, these wheeled underframes are permanently assigned to a specific terminal. Chassis and container, however, can be rail-hauled as a unit, like a conventional wheeled trailer, if that is necessary to balance equipment or to make delivery at some point without crane facilities.

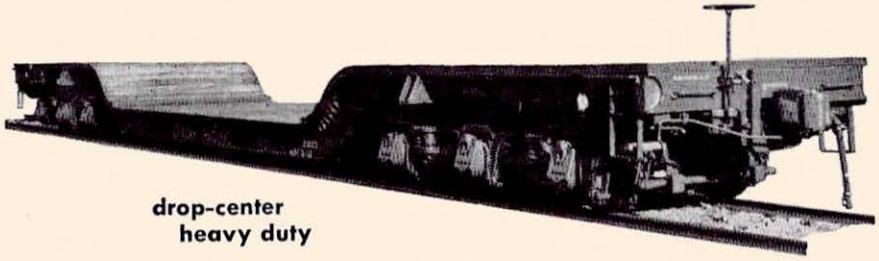
Present equipment includes 75 "bodies" and 40 cars, with another 75 bodies and 35 more cars due to go into service this summer. Orders have been placed, for later delivery, of 105 additional bodies (including 10 refrigerated, 20 refrigerated with meat racks, and 25 insulated but not refrigerated); and conversion of either 75 more short (one container) or 40 long (two container) or trailer-hitch-equipped cars. The new cars may include some converted gondolas, which would be equipped with vertical wooden guide posts and side holes for manipulating tie-down devices. Number of highway chassis (currently 75) will keep pace with number of containers.

Traffic, so far, is limited to the five cities having crane transfer facilities, with extension to Chicago likely to follow when the necessary crane is installed there. Traffic, likewise, is largely local to the B&O, though through movement with other roads is possible, and there is already a considerable interchange of B&O and Missouri Pacific containers at St. Louis. Since cars of either of those railroads can carry the other's containers, their interchange operation is highly flexible. Car and container can be interchanged as a unit, or containers alone can be handled between the two carriers by highway. The latter is the normal practice, because it is frequently faster, cheaper, and keeps cars on owner's rails.

TRANSFER CRANES, 23 ft wide and high, have 25-ft wheelbase, capacity of 30 tons; can straddle both flat car and highway chassis.

a fleet of flats for freight

with permanent bulkheads

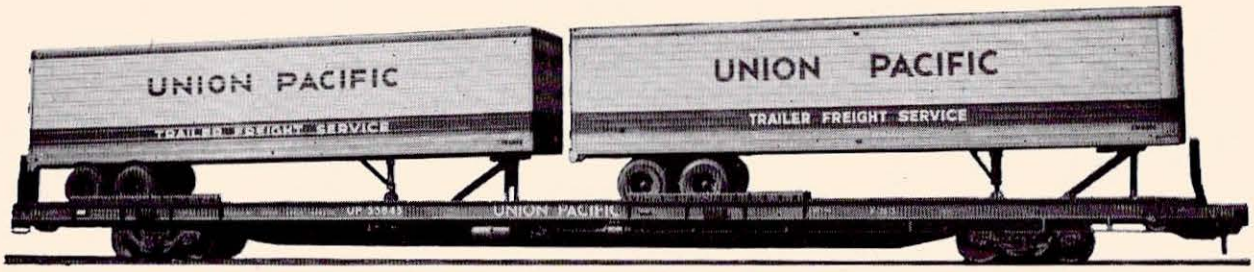


drop-center heavy duty

UNION PACIFIC Railroad provides a variety of flat cars to meet the requirements of shippers in the western territory we serve.

Constant additions to the Union Pacific fleet of freight cars means shippers have the advantages of latest type equipment, for the quality of freight service we strive to maintain.

standard type

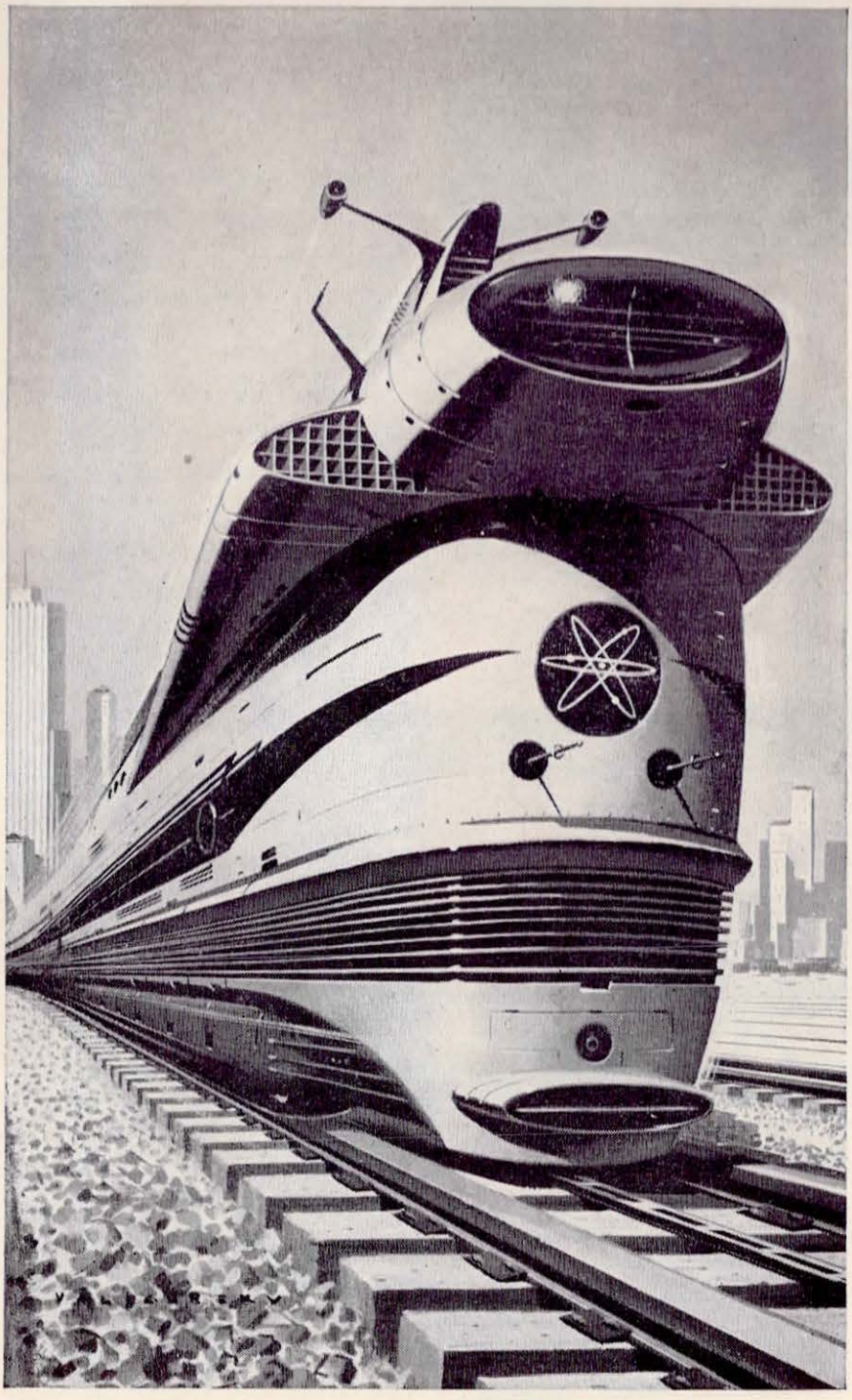


85 ft. for over-the-highway trailers and automobile transports

WHENEVER YOU SHIP IN OR THROUGH THE WEST

...be specific, say Union Pacific RAILROAD

Will atomic energy power tomorrow's railroads?



Some day you may see a train like this—powered by the energy locked up in the atom.

Possibly the locomotive will have its own nuclear reactor. Or perhaps it will use electricity generated at atomic power stations. But this much is certain. Of all forms of land transportation, railroads offer the greatest opportunities for the efficient use of nuclear energy.

Railroads are constantly exploring exciting possibilities like this. Such progressive thinking is important to all of us—for we're going to need railroads more than ever in the boom years ahead.

Clearly, it's in the national interest to give railroads equal opportunity and treatment with other forms of transportation. America's railroads—the lifeline of the nation—are the main line to *your* future.

ASSOCIATION OF

AMERICAN RAILROADS

WASHINGTON 6, D. C.

What Are Your RR's Rules?

The following comments on operating rules are the second and concluding portion of a letter, the first part of which appeared recently on this page (RA, July 4, p. 35). The original discussion began in our March 21 column, page 18.—*Editor.*

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If either of the two trains does not make the expected time, how could the meeting point be changed? What about local freights and work trains?

On our railroad, when we use the term "positive meet" we are referring to meeting points established by train order. Our rules do provide for timetable meeting points, but we have superiority by class and direction which enables each train to know which will take the siding, and which will hold the main track. Likewise, provision is made for the superior train to proceed if the inferior train is not clear by the prescribed time. Inferior trains so failing to clear must protect themselves as prescribed by Rule 99. However, it is the practice to confirm timetable meeting points by train order.

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With respect to sections, our division still operates sections: both special trains, and trains supplementing the service of a regular train. Our rules provide no limit in the number of sections which may be operated, so long as the schedule is fulfilled within 12 hours. We do not, however, operate sections very frequently.

In my experience as a rule examiner I sometimes found it difficult to get across to the student the proper understanding of sections. In giving examples of sections, students will refer to Second 95 or Second 80. I have never had a student give the first section as an example. In timetable-train order operation, sections of superior class trains may serve a decided advantage, in that a train may be given preference over trains of inferior class, and be given the same precedence as other trains of the same class in the same direction. This has the effect of requiring trains of lesser importance to give way to the section. At the same time, it permits the section to operate without regard to trains running on other schedules of the same class, in the same direction.

It should be borne in mind that a section is a regular train, since it is authorized by timetable schedule. An extra train cannot be a section, inasmuch as extra trains are not authorized by timetable schedule.

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In answer to question 3d, I would say, for reasons outlined above, that operation of sections constitutes a bona fide approach to sound railroad operating practice. However, in CTC territory, or in territory in which the superiority of trains is superseded by indications of automatic block signals, there is no great advantage in the operation of sections. In fact, on one division of our railroad with which I am familiar (which is governed by signal indication over the entire division) extra trains have been discontinued, and, as a general rule, sections are not operated. When a train not authorized by time table schedule is operated, such train is not given identity in the usual sense, but is designated by the engine number.

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In the majority of these cases the railroad inspector or technician, as they are called on our railroad, visits the plants which manufacture the products named above and is welcome in that it is a double check on the inspection of their production line methods.—*W. A. Fister, superintendent motive power and rolling equipment, Reading.*

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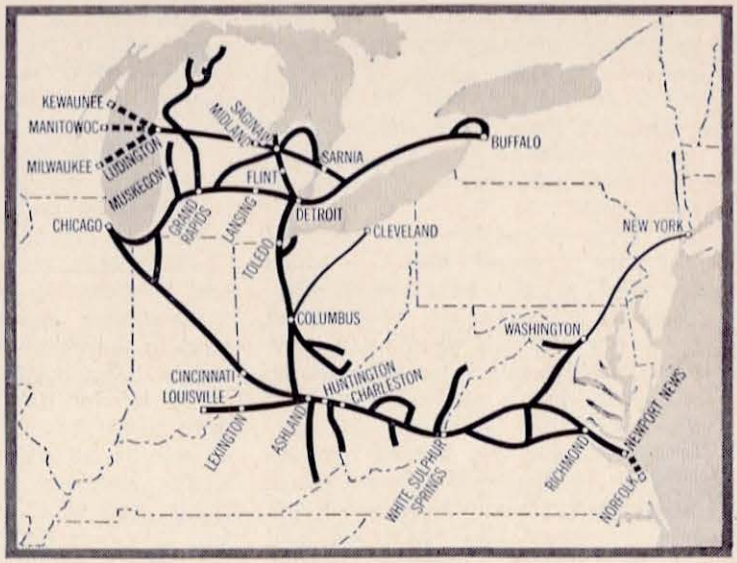

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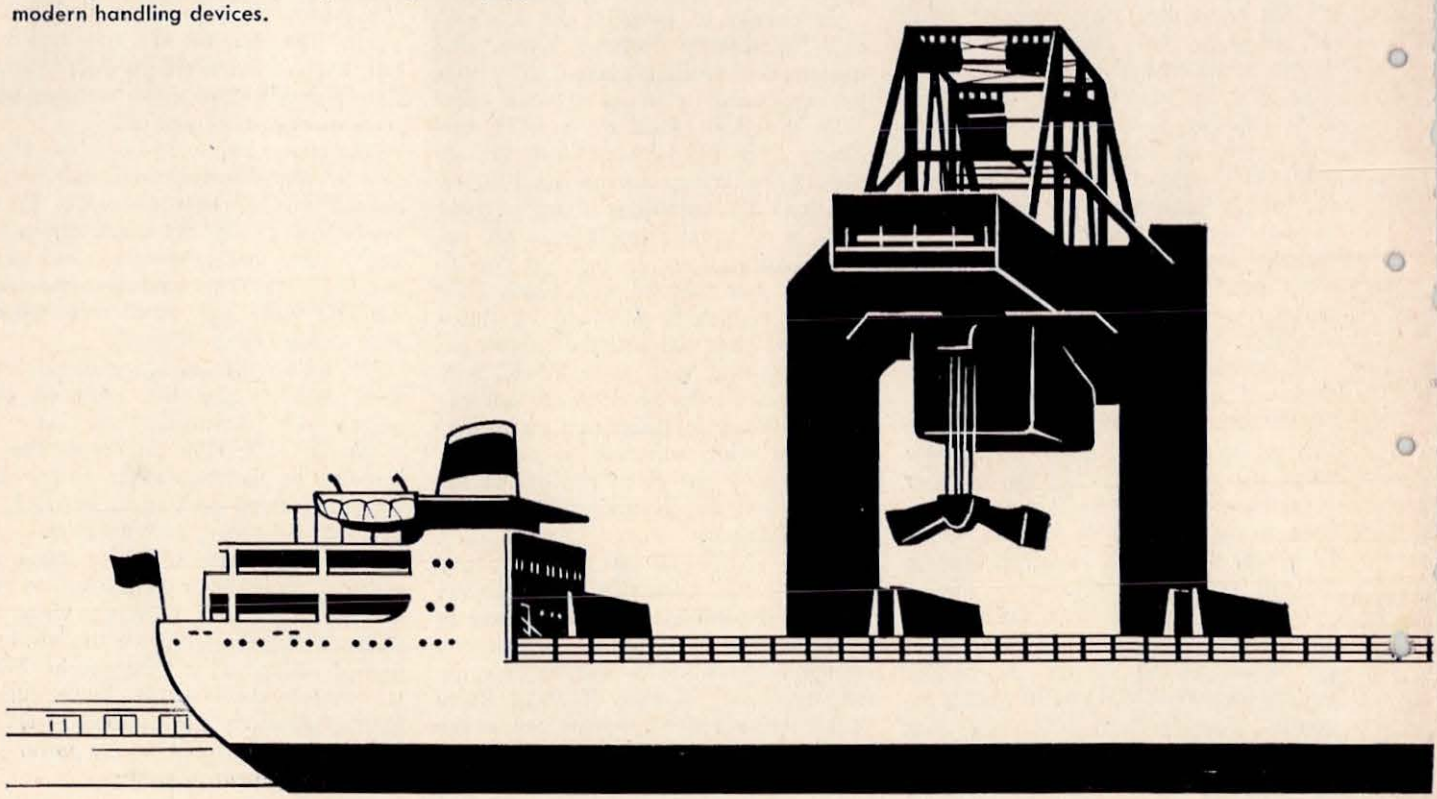

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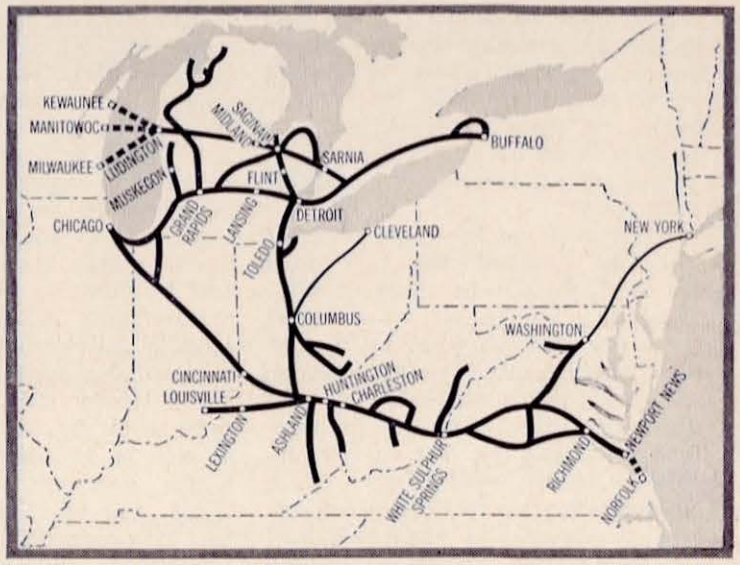
C AND O

Outstandability



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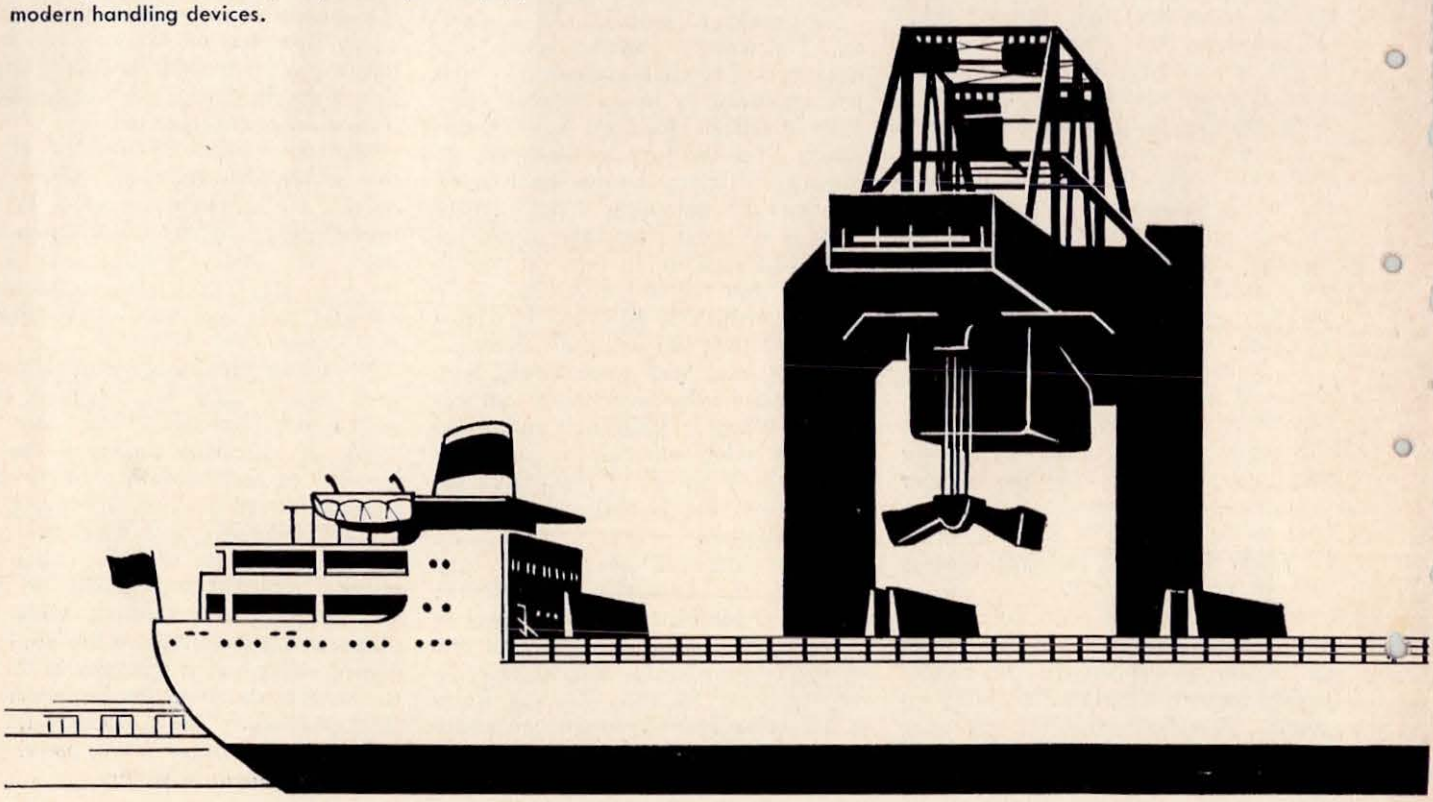


Newport News, Va. . . .
Chessie's own front door to world trade

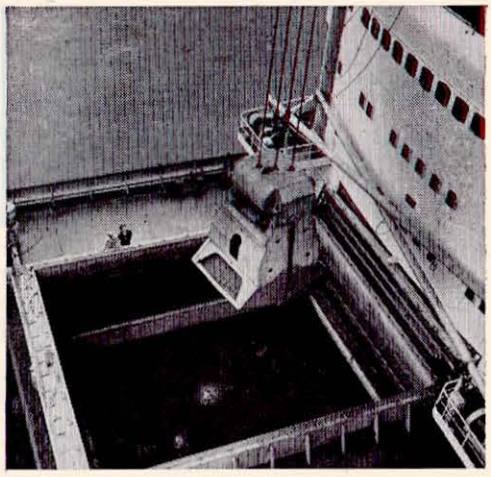
Planned and built by Chesapeake and Ohio Railway, Newport News, on Hampton Roads, Virginia, offers outstanding export-import transportation benefits. From anywhere along the Chessie Route, merchandise can be under C&O's careful supervision right up to shipside. At Newport News: modern, efficient equipment to handle all types of cargo . . . over two million square feet of warehouse space . . . expert packing service to cut inland freight costs . . . no lighterage or drayage charges . . . quick car classification to speed your shipment on its way. And always prompt reporting by CLIC, Chessie's system-wide electronic Car Location Information Center, keeps you informed of your shipment's progress.

To find out how your export-import shipments can benefit from the outstanding facilities of Newport News, call your nearest C&O representative. C&O traffic offices are located in major cities from coast to coast and Canada to the Gulf.

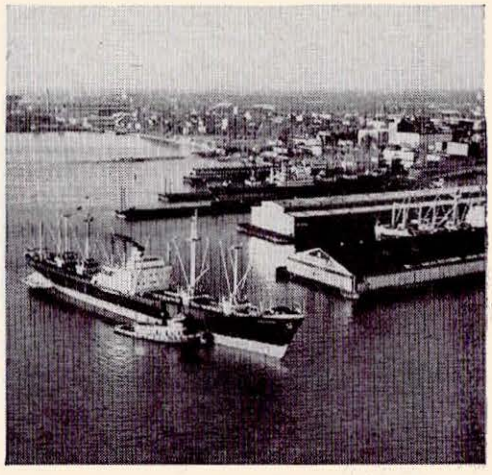
Chesapeake and Ohio Railway

TERMINAL TOWER, CLEVELAND 1, OHIO

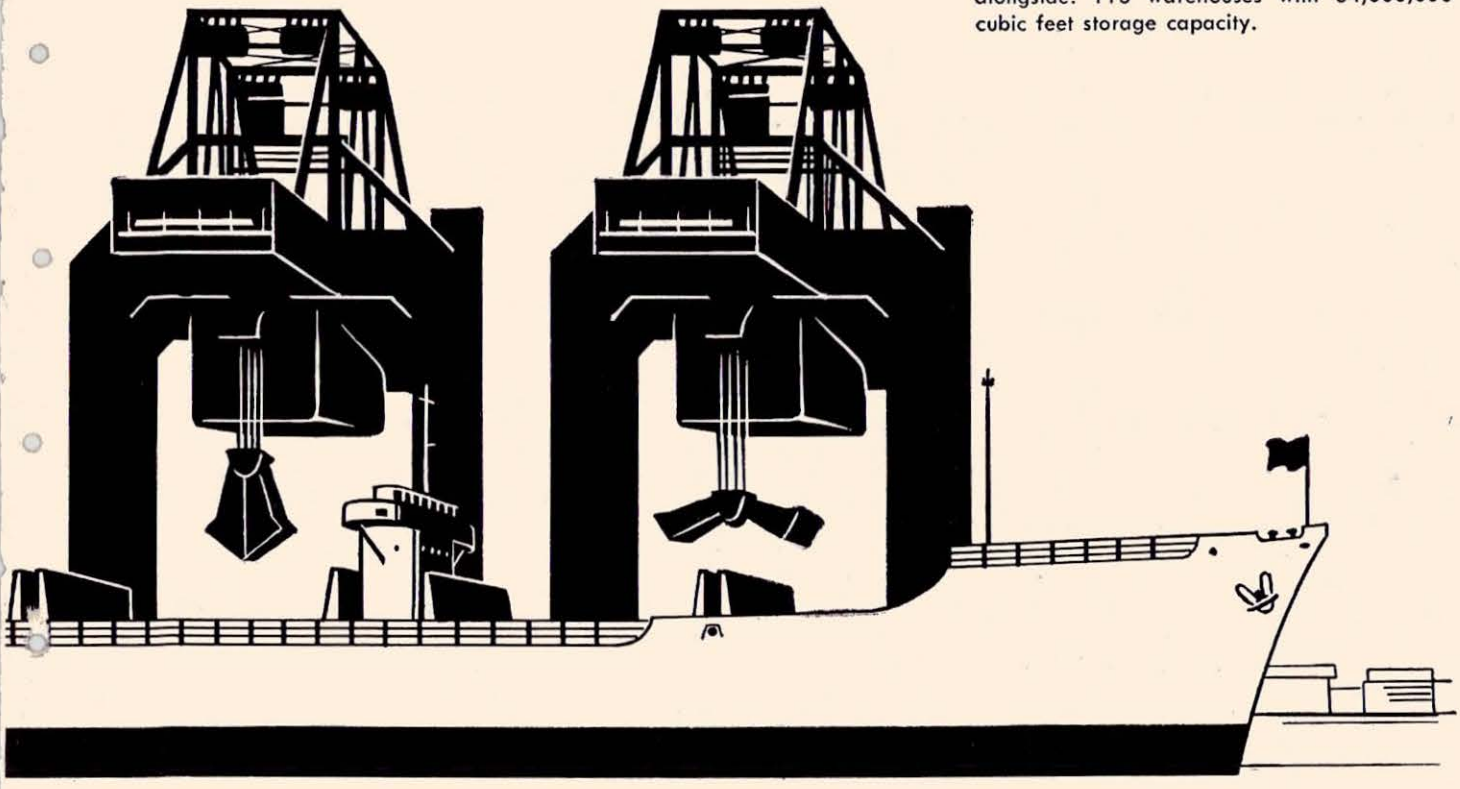
Outstandability in Transportation



World's most modern and efficient bulk cargo facilities include three unloaders, which can work two vessels or handle two types of ore at the same time. Pier #9 water depth 38 to 45 ft.



At C&O Newport News general merchandise piers, water depth ranges from 32 to 37 ft. alongside. 113 warehouses with 34,000,000 cubic feet storage capacity.



NORTH AMERICAN diversification may mean an NAEX piggyback "package" or a network of NITX member lines.

Lasher Probes Transport Future

► The Story at a Glance: Logistics is a word not often used outside the military services. But North American Car aims to make it a much more common term. Logistics, as President E. C. R. Lasher sees it, "is really our business. We're specialists in getting goods from producer to consumer. We've broadened our scope by moving from the purely transportation phase of logistics into the general field of distribution."

Here are some of the ideas he holds on the patterns of transportation in the future—and here, too, is the way he's charting his company's course, in light of changing transport operations.

Among his pointed observations on the transport scene:

• Containerization—"Progress is going to obtain, whether or not there are sectors which don't agree."

• The Interstate Commerce Act—"It should be junked and an entirely new statute written."

• Transport nationalization—"It would mean the ruination of service."

Q. General, you've commented on various occasions about the concept of containerization—the so-called "lowly box"—leading to a new era in transportation and to eventual integration of the various modes. Do you still believe as strongly in this as you have in the past?

A. As a matter of fact, even more so. I think momentum is picking up. I think there is more interest in containerization—and as the industry of the United States moves more and more into the international field, the container idea will gather greater momentum as we go along. We can expect dragging of feet in certain areas. In areas concerned with capital investment in present equipment, areas concerned with labor, there will be certain reluctance to go along. But the economies, in my opinion, are so great that these are just irritants.

Progress is going to obtain, whether or not there are sectors which don't agree.

Q. Where are we now in the development of this concept?

A. The first stage, still. There are containers of various kinds in existence and working. However, I think if you take the absolute number of containers, or the number of tons they're carrying, it's rather miniscule compared to the full potential. We don't have full agreement on size yet. We don't have full agreement on methods of handling. We still have the capitalization of old equipment to worry about. We still have labor factors—without which we can't get the full economies of this thing—to worry about.

Q. Would Congress be among the groups who will need to be convinced of the merit of this concept?

A. Not for containerization per se, no.

Q. But to permit the eventual integration of various modes . . ?

A. Well, there we are trading on semantics. What do we mean by integration, or coordination, or this, that and the other? The minute you say integration to some people, it means common ownership of two or more modes of transportation. To others, it doesn't necessarily mean that. And the word integration itself can be defined so as not to include common ownership.

Coordination is a much milder word, perhaps, but in my book they're synonymous, and whether there is eventual common ownership is yet to be worked out. If you mean common ownership, then, yes, the regulatory bodies—the aid of the Congress, perhaps—are involved.

Q. How can the required unanimity of thinking be developed?

A. I think only by experimentation and test and trial—trial and error. In Army containerization and in other spheres—industries of various kinds—you'll find tailor-made containers for specific requirements. But the economies of uniformity are so great that I think there will be a modicum of uniformity appearing very shortly.

It will be many years, if at all, before we get a uniform, a real uniform, set of containers which everybody will agree with. I think there will always be certain specialties which this, that or the other shipper may require—he may well require them so that there will always be some non-uniformity. However, the great bulk of them will be uniform—and I think it looks as though it's going to be 8 by 8 and in multiples of 10, perhaps 10, 20, 40.

Q. Uniformity in the near future—this would be developed from the ASA studies?

A. Yes, the standards meetings. The National Defense Transportation Association has also had several meetings on it.

Q. They're pretty generally in agreement?

A. Seem to be on size, yes. One great factor there, in my opinion, is—I was rather surprised that it happened—the Army gave in. It owns 50,000 of these 8 by 8 by 6 containers—and yet when the Army bought them it realized that this was an experimental thing, and that maybe this wasn't the size, this wasn't the material, this wasn't the shape. But they have gone along with the majority on size, to get uniformity. That, to my mind, is very significant.

Q. Development of this concept, and the economies it promises, will take time. In the meantime, what can railroads do to speed up the process and to improve their own health?

A. That's a very difficult question to answer. First of all, I've got to say I don't think the uniform container system is the only thing that will be left.

I don't think the semi-trailer, as we know it now or in other sizes, will disappear. It will always be there and have its uses and strong advocates. So I don't think you'll see the container supplanting what we know as piggyback today. I don't think you'll see the container and the trailer-on-flat-car supplant the box car.

I don't think the box car is obsolete. Maybe it's obsolescent, but it's more than caught up with itself, when we put lading bars in it. We no longer have the all-purpose box car the minute we do that, and many do it. So I don't think the container is going to be a be-all and end-all by any means. Containerization? I think it will have its very important place.

To me, right now, railroads no longer have the hot potato. The Interstate Commerce Commission has the hot potato—and that is: What are they going to do about the applications that have been pending for over two years in the area of integrated or coordinated transportation? I think that, were they to act on these things and help show the way not just to railroads, but to transportation generally—not follow and answer "yes" and "no" when somebody puts out a question—[we would have] forward-thinking policy within the framework of the National Transportation Act which can give confidence to the people who want to do things.

People with ideas have money to do something about it. To me, the engineering technology is 'way ahead of the mental technology, if you can call it that. And it's so difficult to get people to think about tomorrow. That lethargy is in the Commission and they have the key right now to unlock the whole thing—but it's forming a roadblock which prevents the investment of money into some of these new ideas.

We do not have the freedom of movement here that other industries have. The hot potato is in the hands of the Commission right now—not in the hands of railroads, the trucking industry or the airlines.

Q. Then it's up to the Commission to lead, rather than to follow?

A. At least to stay even. If they don't think they can lead, it seems to me that once the Congress established

(*Continued on following page*)

For more than 30 years, North American Car's often outspoken, always direct, president — in full, Edmund C. R. Lasher, Major General, U.S.A., retired—was a career soldier. A West Point graduate (1929) who started in the Quartermaster Corps, Gen. Lasher moved into transportation and ended military life as executive director of the Military Traffic Management Agency.

He's been with North American a bit more than two years — long enough to make it perfectly clear that this is one retired general who meant business when he entered the business world.

He means to take North American up front, in strategic position to take advantage of the changing technology that will change transport patterns. Diversification and a bit of daring key the plan: diversification aimed at combining North American's leasing know-how with an overall view of the logistics of supply and distribution; daring which has produced new operations that throw the company squarely into competition with bigger, well established operations.

LASHER PROBES TRANSPORT FUTURE (*Continued from page 33*)

over-all policy, then within the framework of that policy the Commission could take some positive, rather than following, actions.

Q. Is the framework of policy now set up adequate for the Commission to take this action?

A. Sure. I think it was before the Transportation Act of 1958. But they have a problem and we have to recognize it. One of my complaints is that the Congress should also move. I think within the framework of the present act the Commission can do far more than it is doing. On the other hand, I believe technology in transportation has long since caught up with the act to regulate interstate commerce which was drawn in the 1880's.

I believe firmly that the Interstate Commerce Act should be junked and an entirely new statute written—one written not for today but one written in such a form that it could survive the technological advances we know are going to come. Our Constitution was such a broad instrument. At least the framers of the Constitution were of broad enough vision to know that things were going to happen to this country. They didn't know what they were, but they knew they'd better not get too specific. And they didn't. And how many times have we changed it? Twenty-two times in our 180 years—and the first 10 changes should have been embodied in the main document.

Q. How much pressure will have to be applied—and by whom—to get the Act rewritten?

A. Let's analyze a little bit. Why do we have transportation systems? Because there are people who want to go from one place to another, who want to ship goods from one place to another. Therefore, I think the greatest voice, the loudest voice and the one which will be listened to with more attention than any other is the voice of the shipper and the passenger—the bulk of the people. The starting point is with those people, who represent a great part of the voting population of the country.

Shippers are waiting to move forward in piggyback, in containerization. Transportation companies are waiting to see just what they can do. They don't know, because the Commission hasn't spoken. And any company, large or small, isn't going to put out a million dollars or two million or ten thousand if they can't see it coming back within a reasonable time. There's a lot of marking time just on this account.

Q. Then the prime objectives are . . .

A. First, to get the Commission to move faster than it's moving now. And second, simultaneously, the Congress should sit down and draft a new act to regulate commerce. We've made studies galore. The archives in Washington are full of studies, within the past five years, even—and I don't think we need to study the problem too much more. The studies are there. The engineering and technology are there, for the new things.

Q. As to the role the car lines will play, General, you remarked once that companies leasing to railroads are, in effect, taking advantage of a disability on the part of the railroad industry. If we come to a point where the carriers are strong, financially healthy, where will the the leasing operation fit in?

A. First of all, understand the position of the private car lines. Their primary customers are shippers, not railroads. They hold themselves out to lease specialized equipment—equipment which is uneconomical for the railroads to furnish because of the variety of specialties required by specific shippers.

So, were all railroads healthy and wealthy, there would be little business for the private car line with the railroads. The business would almost entirely be with the shipper. Of course, there would be special situations where railroads might want to lease equipment under certain circumstances, but this would be the exception rather than the rule.

Q. North American's NITX pool now has how many members?

A. Nine—Southern Pacific, Rock Island, M&StL, Rio Grande, Texas & New Orleans, New York Central, P&LE, Milwaukee and Lackawanna. Of course we're talking with several other roads.

Q. Do you find these roads are interested primarily in leasing for their own use or for sublease to shippers on a Plan IV TOFC operation?

A. More for their own use. But if they have a shipper who wants to go to Plan IV and if the railroad is willing, they do sublease. This thing is awfully new—and our operation with North American-Emery shows some of the difficulties, brings out some of the bugs. We went into this Plan IV operation of ours—NAEX—on a very modest scale. Why? Because we don't know whether the ICC is going to approve the idea of Plan IV at all, let alone at what level they'll say the rates must be stabilized. So, unless and until they do, nobody's going to put much money into this. Leases are going to be short-term. The individual company—shipper or railroad—is going to want to get out if it's disapproved, so they're not going to write their contract for as long a term as they otherwise would. That's Plan IV. Now on leases to railroads under NITX—those are 15-year leases. And what they do with these cars is none of our business.

Q. NITX membership includes a road which holds dual pool membership, so to speak—Trailer Train and NITX. What's the advantage to a road in joining NITX if it has prior TTX membership?

A. Its ability to have a larger total amount of equipment from which to draw. Piggyback is growing so fast that—I won't say it's outstripping the ability of carbuilders to build cars, it isn't quite that—but at times it gets ahead. You're better off if you have a larger number of cars to draw from. Then, our plan is a cheaper one than TTX. In instances where we have a member who is also a member of TTX, he may, in going further on down the line, stay with us because of the economies in our plan, rather than to go further with TTX. That all remains to be seen.

It's a very competitive situation. We think there's room for two. And we think a pool operated by other than users of the pool is a better base than a user-dominated pool.

Q. Most major leasing pools or companies offer only what we know now as special equipment. Do you see any need for a pool which would concentrate primarily on so-called standard equipment?

A. There have been certain suggestions made in that direction. Most of them, the way I interpret them, involve the pledging of credit by financially strong lines to assist financially less strong lines—unless, of course, you go to a government subsidized borrowing of some sort or government guaranteed loans, which I am completely against.

But in a wholly railroad-owned pool

(*Continued on page 36*)

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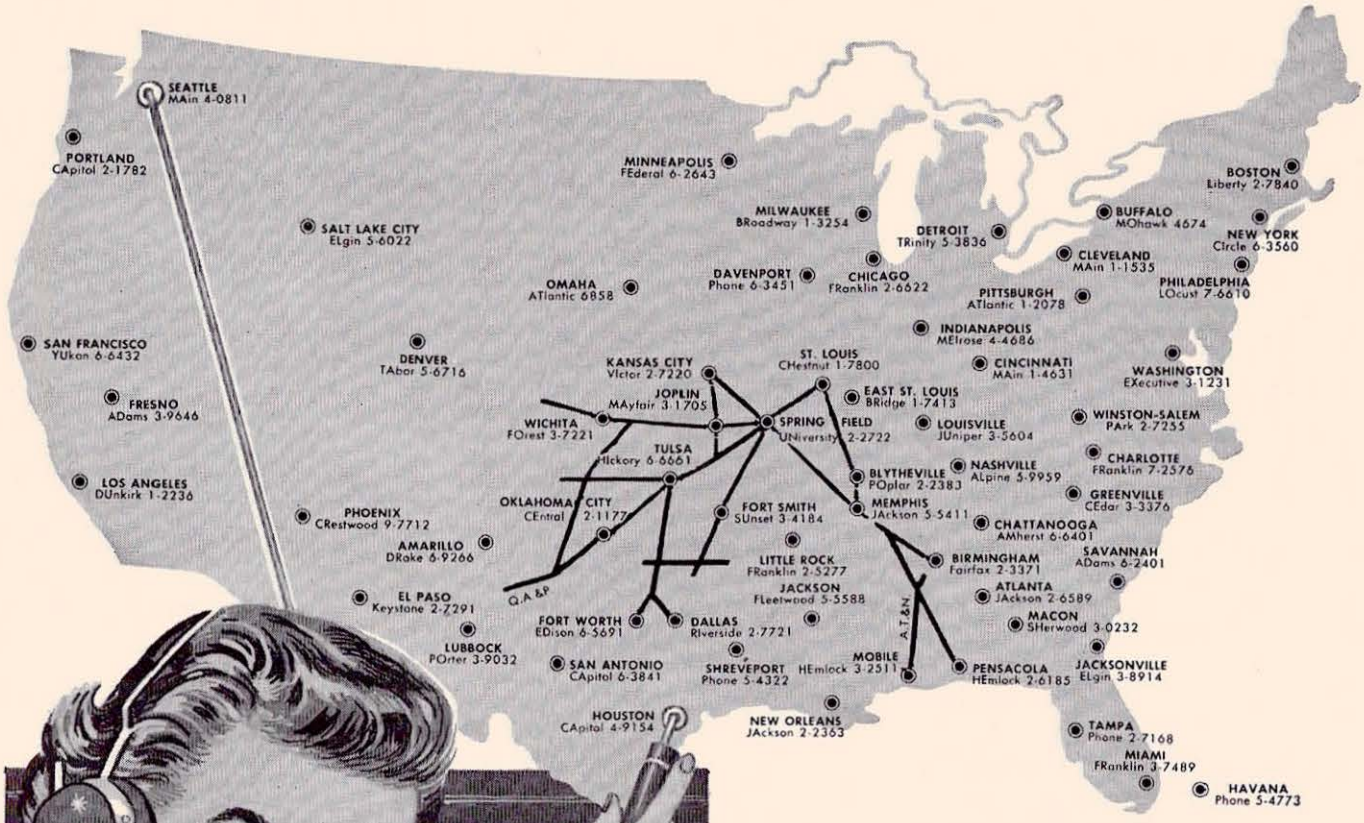

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LASHER PROBES TRANSPORT FUTURE (*Continued from page 34*)

—there might be some stronger lines who may not want to do that, and others might find themselves being dominated by the financially strong lines. Still, this plan that's growing in the West, as I understand it, covers primarily standard cars—and it's far better [than a plan involving the government] if the financially strong lines will hold still for it.

Q. What about availability of equipment through NITX?

A. We haven't confined NITX to flat cars. We have some covered hoppers and we're considering putting in other types—more in the line of specialty cars than standard. There we think we fill a need. There is not only a geographic but also a seasonal fluctuation in the railroad business.

We think we can better distribute cars according to those geographic-seasonal variations than could a railroad pool. Then, in addition, we assume the financial liability—it's not one line assuming for any other line. And it would be a strictly business proposition—which is a far better thing than handouts.

Q. General, in recent weeks there's been some pointed comment—from a railroad president and a top officer of Railway Express—on the danger of permitting the industry or segments of it to deteriorate to a point where nationalization is about the only alternative. What's your viewpoint on that?

A. I think it would mean the ruination of service of our transportation industry. I think our whole philosophy of business and industry is built upon giving the customer the service he wants and extracting from him the value of that service.

Government is in a lot of things, a lot of things that many of us think it shouldn't be in. One of the notable examples where it has been moderately successful is the postal service. And that, for years, has not paid its way. Yet for some reason or other, the Congress has not had the courage to charge the customer what the service costs. So we find that all the people are paying in taxes for a service which only a part of the people are using.

So, also, other spectres appear. You're going to have a more difficult labor situation. Labor can demand more from the government, because they vote, than they can demand from cold, calculating businessmen. Those are bad words to use in connection with businessmen, but I mean the guy who's got to pay his stockholders a dividend.

We will find featherbedding as we now know it child's play compared to what it would be if we ever nationalize—starting with the bureaucrat at cabinet level on down, bureaus and subbureaus . . . something which to me is anathema. I've consistently argued—while in government service and since—that government should get out of all the business it possibly could. All it could, with the proper safeguards—we have them in various statutes and I think the public is completely protected from the gouging of dishonest people.

I think that the government should buy its needs—should purchase what it needs from regularly established business and industry—and I've consistently held that and fought for it.

Railroading After Hours with Jim Lynch

GENERAL PRACTITIONER—I was talking to a railroader the other day, whose experience also includes trucking and air transportation. I asked him what differences he had noted between railroads and the other carriers.

"Air transportation," he said, "is market-minded. Truck transportation is cost-minded and immediate-profit-minded. Truck transportation concentrates on the present—on making the best of today. Air transportation looks to the future—bigger business and profits next year and five years from now. Railroads, I regret to say, tend to be much too loyal to tradition—how business has been done in the past. They are less intent than their rivals are to opportunities that confront them today and for the future."

RR MAN INTO TRUCKER—Speaking of variety in transportation experience—how about W. G. White who only a few months ago was an operating vice president of the Lackawanna, and is now president of the nation's biggest truck line? There has been, up till now, too little common understanding among leaders of the several forms of transportation. Some shifting around among them at the executive level ought to be a good thing for the transportation business as a whole.

Some of the inland water carriers are currently trying to make railroads out as plug-hatted monopolists. Some truck operators, also, have at times been less than complimentary in their references to railroad leaders. Such negative opinions have occasionally been reciprocated by railroaders, and not without cause.

Mutual suspicion may have tougher going, though, in situations where transportation leaders have experience enabling them to appreciate the problems of branches other than their own.

'TURNIP' FOR WATCH—In connection with the publicity resulting from the P&LE's okaying a wrist-watch for use by operating department employees, President John W. Barriger has been asked who it was that first called a watch a "turnip," and why. Since Railway Age was the source of his idea to legitimize the wrist watch for railroad use—JWB asks us to answer the turnip question for him. Does any reader know the answer? Webster's dictionary gives turnip as slang for watch, but doesn't tell where it came from.

WHAT'S YOUR NAME?—This department offers a convenient spot for my friends to do their griping, with impunity to them. One complaint in this category I've received more than once is the practice of a lot of people in showing only their initials with their surnames, leaving their given names to be guessed. Suppose the initial is F—and you know the fellow expects you to call him by his given name—how are you to know whether it's Fred, Frank or Ferdinand? The case is particularly tough with a gent whose initials are (say) E. B. but who goes by the name of Joe.

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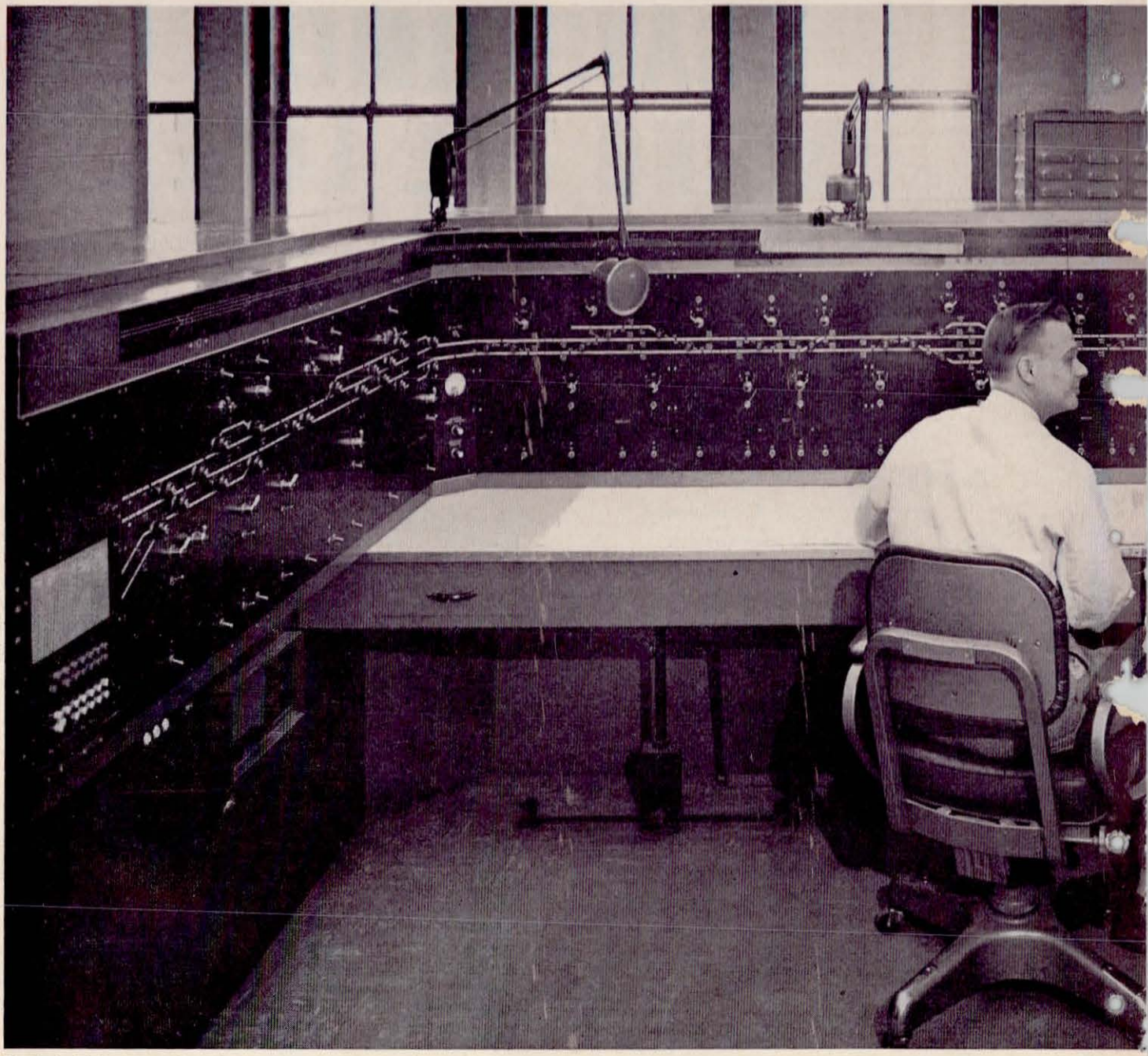

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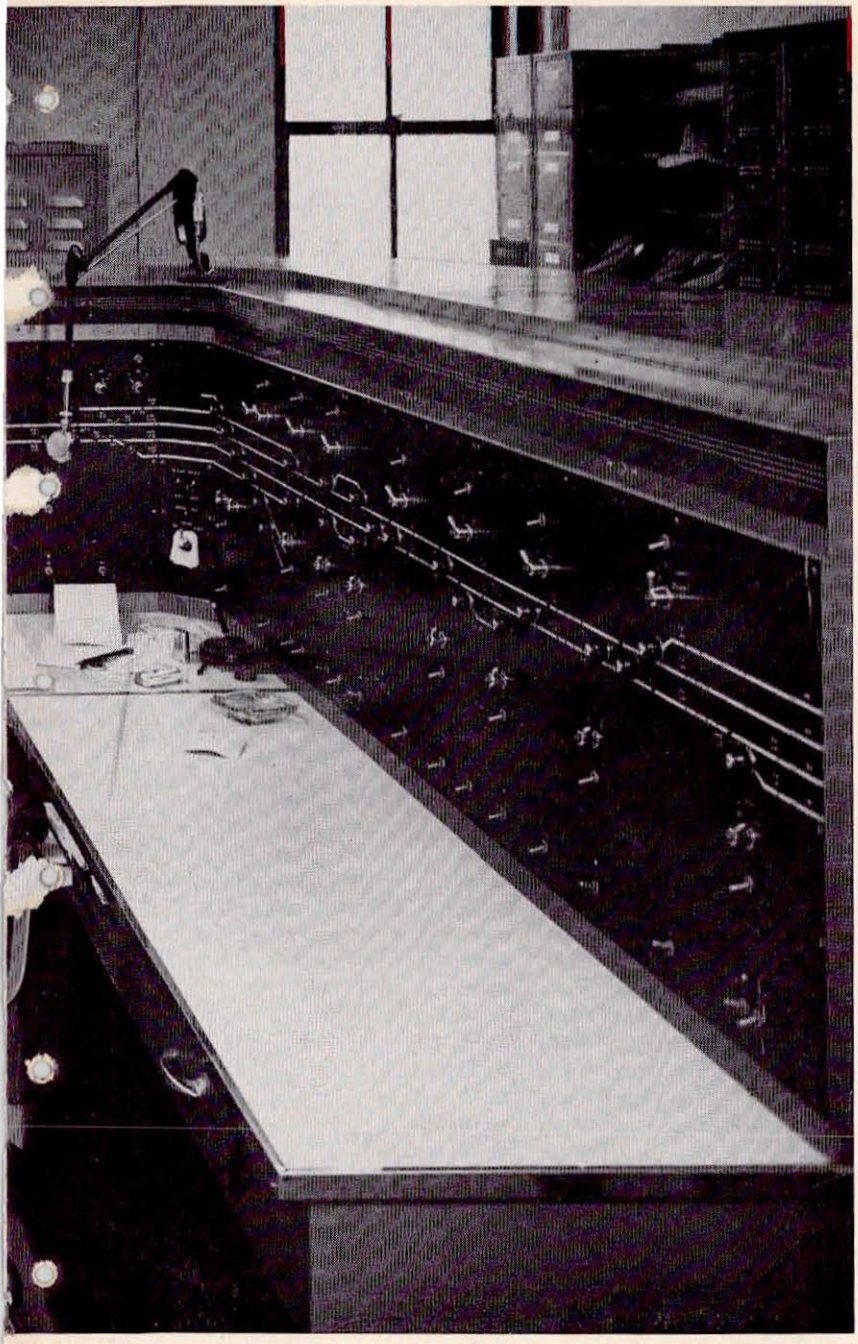

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How to Keep Industrial

► **The Story at a Glance: Personal injury accidents on in-plant industrial railroads result in an average loss of $9,800. Property accidents, while less frequent, usually result in severe damage and high expense.**

Analysis of such accidents indicates a decided pattern of causes which can be easily corrected if the attention of industrial management is directed to existing conditions. The analysis shows that:

- **Predominant accident causes are impaired clearances, unsafe equipment, unstable loads, tripping hazards, inadequate illumination, lack of warning devices, restricted visibility and unauthorized crossings.**
- **Personal injuries occur most frequently to railroad employees, especially yard conductors, switchmen and brakemen; and to other employees loading or unloading freight cars or crossing tracks.**
- **Accidents occur principally along side tracks, at grade crossings and in industrial switching yards, and on freight docks.**

The article which follows is the first of a series abstracted from papers prepared by a major industrial insurance company to tell its policy holders how such accidents may be reduced or eliminated. It was written by Charles A. Goodwin, traffic and transportation engineer, Liberty Mutual Insurance Company, Boston, Mass.

The facts are of interest to industrial traffic managers responsible for operating or using in-plant rail facilities, and also to railroad engineering, operating, signaling and safety officers whose duties include liaison with industries having such facilities.

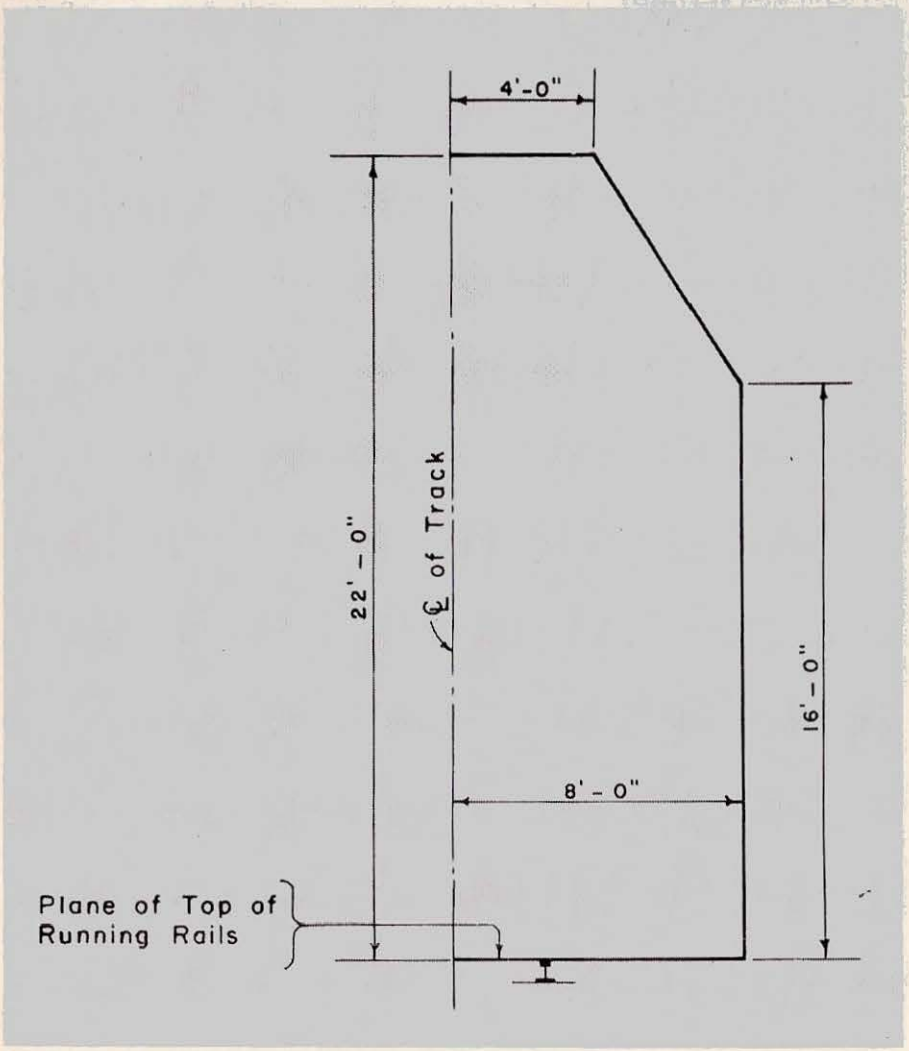

FIG. 1—CLEARANCE FOR STRUCTURES (other than platforms) adjacent to industrial side tracks are recommended by the American Railway Engineering Association.

The greatest single cause of accidents on industrial side tracks is insufficient clearance for moving railroad cars and/or employees.

In most cases, minimum clearance limits established by side track agreements are violated by industry. Building additions or betterments, conversion of handling processes, changes in freight car scheduling and other environmental alterations may be instituted without refernce to side track agreements.

The resulting less-than-allowable clearances, combined with lack of employee indoctrination in clearance hazards, creates conditions which lead to accidents.

Fixed Structures

In order of prevalent hazards, fixed structures which impair safe clearances are:

1) **Platforms and Retaining Walls**—Usually at a height in line with the legs of a railroad employee riding the step or stirrups of a moving freight car, protruding platforms and retaining walls cause crippling injuries. Older wooden platforms in disrepair are the most frequent source of injury, due to such things as loosened face plates and sagging sills. Often, overlapping repairs made to strengthen wooden platforms create a clearance obstruction in themselves.

Retaining walls tend to creep under earth pressure activated by alternate freezing and thawing. Periodic measurements should be made to check encroachment of retaining walls on side track clearances.

2) **Pipes and Wires**—Low back, shoulder, and head injuries are sustained by railroad employees forced against wall pipes and wires that have been indiscriminately installed without posted warning. Overhead steam lines or pipe trestles are subject to the same clearance requirements as any overhead structure under which railroad equipment must pass. Guy wires supporting poles, and standpipes are often installed at less than safe clearance limits, creating an injury hazard unless advance warning is posted.

3) **Buildings and Gates**—Though they are commonly posted for insufficient clearance, buildings and gates remain a common accident exposure. Signs reading "Will Not Clear Man on Side of Car" spell out an explicit warning, but their legibility is not always maintained.

Betterment or enlargement of exist-

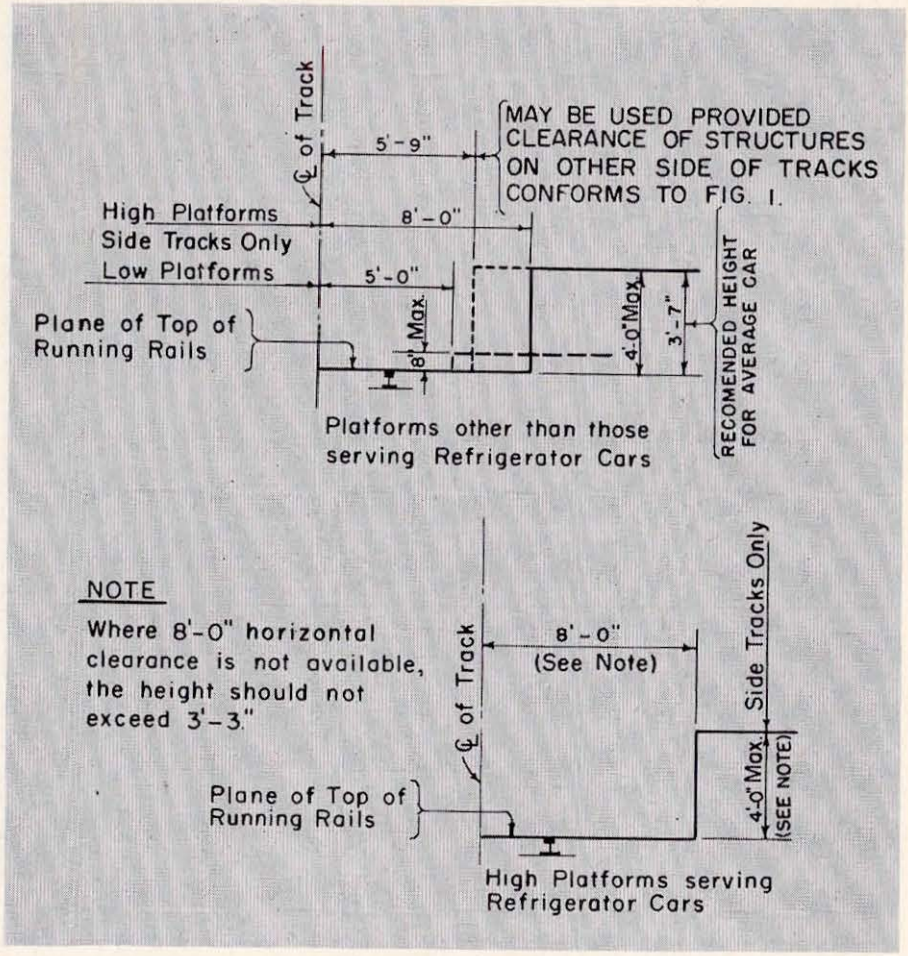
℄ of Track
5'-9"
MAY BE USED PROVIDED CLEARANCE OF STRUCTURES ON OTHER SIDE OF TRACKS CONFORMS TO FIG. 1.
High Platforms
Side Tracks Only
Low Platforms
8'-0"
5'-0"
8" Max.
4'-0" Max.
3'-7"
RECOMENDED HEIGHT FOR AVERAGE CAR
Plane of Top of Running Rails
Platforms other than those serving Refrigerator Cars
NOTE
Where 8'-0" horizontal clearance is not available, the height should not exceed 3'-3"
℄ of Track
8'-0" (See Note)
Side Tracks Only
4'-0" Max. (SEE NOTE)
Plane of Top of Running Rails
High Platforms serving Refrigerator Cars

FIG. 2—PLATFORM CLEARANCES, also AREA-recommended, are shown here. All side clearances are measured from track center, i.e., 2 ft, 4¼ in. in from the inner face of the top of either rail.

ing buildings may create a hazard which did not previously exist. Doors and windows which open out toward spur tracks are particularly dangerous. Advance consideration should be given to clearance limits before structural plans are approved.

Unless heavy wire gates are securely latched in open position, they may tend to swing inward toward a moving car to strike grab irons, stirrups, or a riding brakeman. Latches and other lock-back devices for gates require regular inspection for malfunction due to warpage, wear or obstruction.

4) **Elevator Bins, Chutes, Platforms, etc.**—Overhead structures erected to facilitate car loading of bulk materials by gravity may, during loading, create less-than-minimum overhead clearances. So long as such elevated structures may be raised to safe clearance prior to car movements, accident exposure is reduced, but experience shows that repetitive use of an adjustable chute or platform may result in careless observance of clearances.

In addition to warning telltales and signs, any device used to hold an elevated bin, chute or platform in loading position inside clearance limits should be provided with a microswitch to activate flashing red lights while it is in the down position. Equally important is the installation of suitable devices to hold elevated loaders in raised position when not in use.

Temporary Obstacles

Structures, materials and vehicles which temporarily encroach inside of safe clearance limits are a constant source of industrial railroad accidents.

1) **Parked Vehicles**—Increased use of passenger cars by industrial employees has created a problem of available storage space, especially at older industrial sites where land adjacent to side tracks has been converted to parking areas. When bumpers or guard rails are not provided parallel to switch tracks, employees may park inside allowable safe clearance. The degree and locations of such encroachment may vary daily, which serves to increase the exposure to accident.

2) **Truck Loadings**—Truck spotting for direct loading from cars, promiscuous yard storage of trailers, service operations, are among the common causes of conflict with moving freight cars. Some truck drivers tend to park their vehicles at the most convenient location, with little regard for track clearance. This is particularly true where truck docks are adjacent to tracks, and the maneuvering area is restricted.

3) **Yard Stores**—Many industrial plants utilize yard areas for warehousing or storage of raw materials and finished products. Systematic control of marginal limits of bulk piles and tiers is necessary to maintain safe

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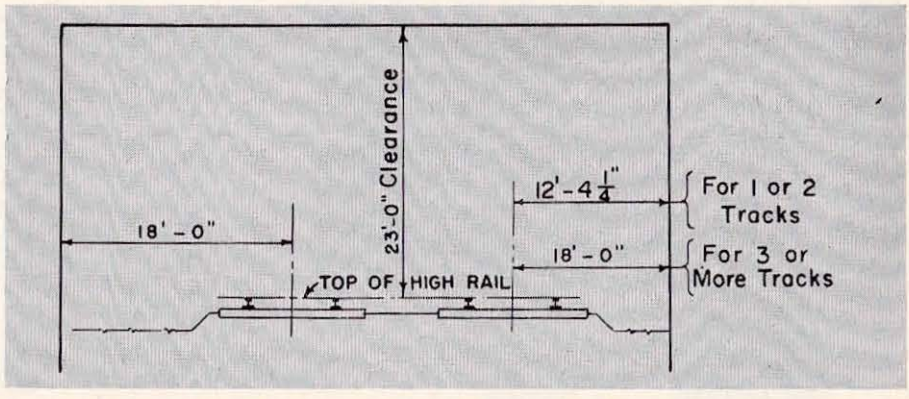

FIG. 3—VERTICAL CLEARANCES may be checked by placing a straight edge across both rails and measuring upward from the bearing edge.

clearance limits adjacent to switch tracks.

Maintenance

Lack of maintenance of industrial side tracks, including rails, joints, ties, ballast shoulders, and devices is contributory to accident exposure. In most side track agreements, the shipper is responsible for construction and maintenance. The railroad furnishes labor and materials at the expense of the shipper and will maintain, repair, or renew the track at shipper expense, subject to his request.

1) **Grade of Track**—Once the height of rail has been established, any deviation may cause serious operational hazards. Broken joints, rotten ties, loose spikes, and lack of ballast, are some possible sources of track settlement, particularly when subject to repeated wheel loading. Periodic inspection should be made for signs of track settlement so corrective measures may be applied in advance of major damage.

2) **Drainage**—Adequate drain-off for side track beds is important to proper maintenance. Accumulation of water and ice under the ballast or on shoulders is perhaps the most immediate cause of rotting ties, loosening spikes, breaking joints and washing out of ballast.

An equal advantage of good drainage is prevention of washout of embankments. Unstable or narrow shoulders may result in falls or missteps.

Elimination of weeds and other vegetation in the track bed is essential to good drainage; it increases life of ties, reduces fouling of ballast, and prevents covering over of rail accessories requiring replacement.

3) **Housekeeping**—Sections of side track with hopper installations for such things as coal, ore and grain, are a constant source of danger. Precautions must be taken to keep the area clear of spillage and to check on placement and bearing strength of plates, planks and other enclosures over which workers must walk.

Side tracks tend to become areas

(Continued on page 52)

About the Author

Charles A. Goodwin is traffic and transportation engineer for the Liberty Mutual Insurance Co., of Boston, one of the world's largest underwriters of industrial insurance. Mr. Goodwin is a civil engineering graduate of the University of Michigan. From 1940 to 1947 he served as transitman and assistant grade crossing engineer for the Boston & Maine; and in 1948-1949 attended the Yale University Bureau of Highway Traffic as an Automotive Safety Foundation Fellow. He is a member of the Institute of Traffic Engineers and of the Highway Research Board. The accompanying article is the first of a series abstracted from papers prepared by Mr. Goodwin for the benefit of Liberty Mutual policy holders on reduction of accidents on in-plant industrial railroads. In them, he brings out facts which are of interest both to industrial traffic managers responsible for operating or using in-plant rail facilities, and to railroad engineering, operating, signaling and safety officers whose duties include liaison with industries having such facilities.

CHARLES A. GOODWIN

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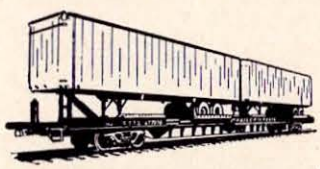

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NEW ORLEANS

THE POINT IS THIS — six major traffic gateways connect the busy South of today with the rest of America. And only *one* railroad — the 8,100 mile Southern Railway System — serves all six!

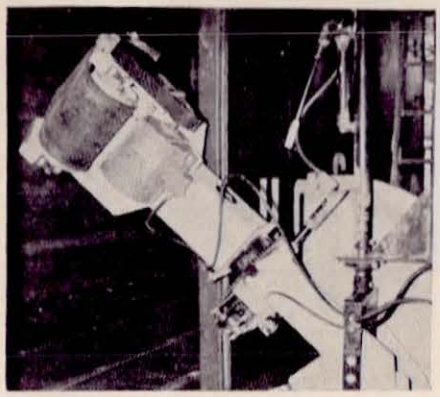
For both shippers and receivers, this means dependable, *one-railroad* through service between practically any part of the South and any of its major gateways, either South-and-West or South-and-North.

No matter how you look at it, when your shipments are riding to, from or within the South, it pays to use the *one* rail system that serves more territory and more communities in the South than any other railroad. Ship and receive your freight via Southern and see!

THE SOUTHERN SR SERVES THE SOUTH

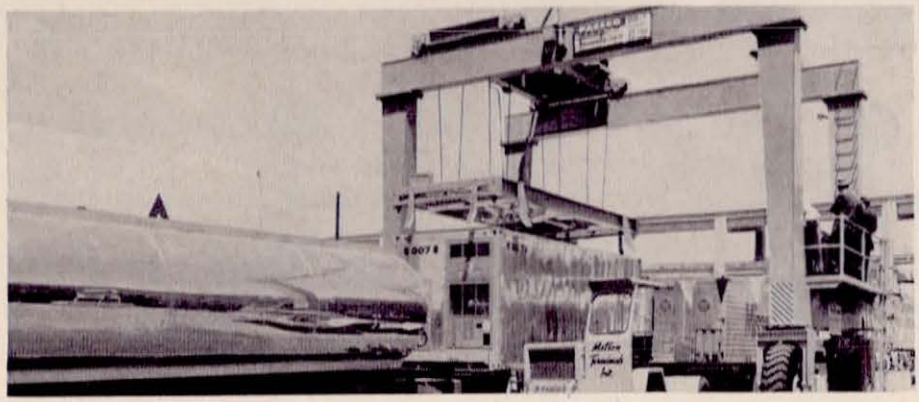
RAILWAY SYSTEM

New Products Report



Bulk Material Loader

A centrifugal-action bulk material handler, the "Flinger," is said to permit one-man loading of even the biggest box car. Designed to handle practically all dry bulk materials, Flinger utilizes a high-speed belt to direct material in an accurate, compact stream, with little dust. Available in four styles and nine models, it can be hung on a structural member if necessary. *Finco, Inc., Conveyor div., Dept. RA, Box 968, Aurora, Ill.*

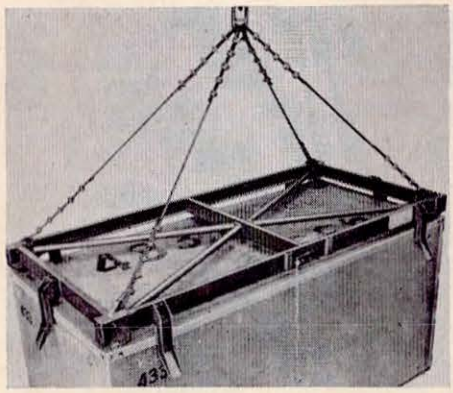


'TransTainer'

Paceco "TransTainer" is designed to handle ocean cargo containers which move also by rail or highway.

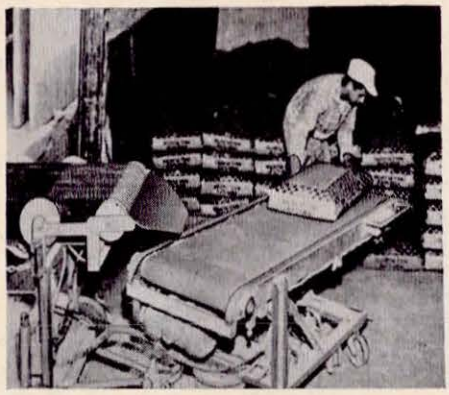
The rubber-tired unit, 26 ft. high and weighing 60,000 lb, can straddle a railroad car and truck, or two cars, simultaneously, to transfer containers from one to the other. Able to go practically anywhere, it is expected to minimize the number of container chassis usually required for storage yard systems by, in effect, making the containers themselves more mobile. It can also stack containers two high.

The first complete TransTainer, after being exhibited at the railway mechanical convention in San Francisco last month, was assigned to the Alameda docks of the Matson Navigation Co. for use in its growing container operation. TransTainer sales are being handled by Pullman-Standard, Trailmobile, Transport Leasing Co., and Pacific Coast Engineering Co., which developed it. *Pacific Coast Engineering Co., Dept. RA, Oak & Clement, Alameda, Calif.*



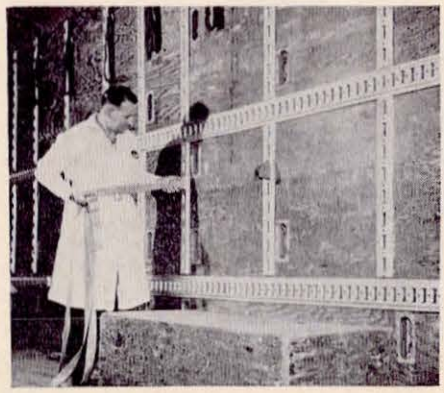
Container Lifter

A new lifting spreader for semi-automatic-manual operation of the Speedloader system of containerized cargo handling is expected to add to the system's over-all flexibility. The semi-automatic spreader—compatible for use wth containers equipped for the fully automatic Speedloader—is intended for use where traffic volume may not warrant the fully automatic system. *National Malleable & Steel Castings Co., Dept. RA, Cleveland, Ohio.*



Power Stacker

A power stacker, used with power-driven conveyor, permits one operator to load 100-lb bags 20 per minute. It saves, the manufacturer says, up to 75% of man-hours and eliminates hand trucks in loading box cars or highway trucks. The operator merely guides the bag or package into place. Discharge arc of 180 deg reaches all parts of a car. *Power Curve Conveyor Co., Dept. RA, 2185 So. Jason St., Denver 23, Colo.*



Cargo Control System

The Aeroquip Series E Retrofit cargo control system is said to permit quick, easy conversion of older trailers into modern specialized cargo vehicles. Fittings for the new system can be installed directly over plywood walls, in virtually any combination of vertical or horizontal, to provide over 1,000 cargo tie-off points, plus multiple-decking if needed. *General Logistics div., Dept. RA, Aeroquip Corp., 2929 Floyd St., Burbank, Calif.*

To get more business

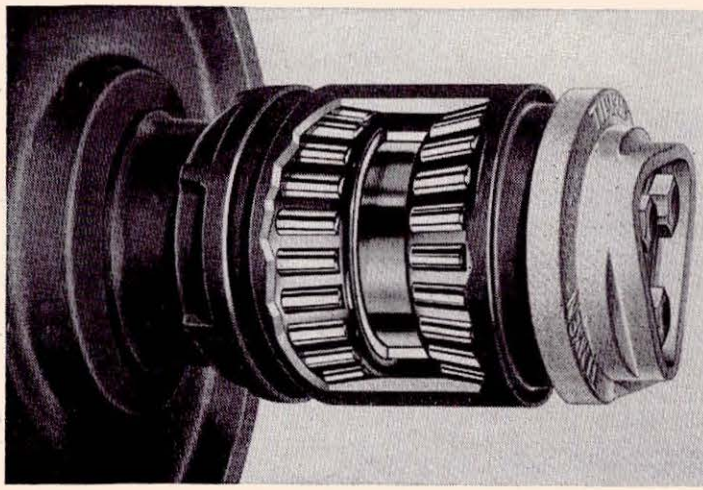
Railroads are making the "Big Switch"

To get more business through better service, more railroads are switching to "Roller Freight". With more freight cars on Timken® Heavy Duty-High Mileage "AP" *tapered* roller bearings, railroads are on their way toward solving the hot box problem—the No. 1 cause of freight train delays. Proof? In actual service Timken "AP" bearings are averaging over 214,000,000 car-miles per car set off. And Timken bearings slash terminal bearing inspection time, cut maintenance to the bone.

Timken bearings solve the hot box problem because they *roll* the load. They don't slide it as friction bearings do. For example, on some cars of one piggyback line, Timken bearings rolled 168,000 trouble-free miles in one year in high speed service.

Now, 97 railroads and other freight car owners have joined the big switch to "Roller Freight". There were 53,270 Timken bearing equipped freight cars in service or on order by the end of 1959. Already, this total has jumped to over 67,000. And we're meeting this demand by increasing our production capacity to over 40,000 car sets a year.

The time to switch to "Roller Freight" is *now.* Timken Heavy Duty-High Mileage "AP" bearings are available for all sizes of standard axles and Class G 7 x 14. When all freight is "Roller Freight" the railroads will save an estimated $144 per car annually. So join the big switch to "Roller Freight" for high mileage, trouble-free service, increased profits. The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".



heavy duty TIMKEN®
tapered roller bearings

NEW DAMAGE CONTROL DEVICES

FROM YOCAR

5

NEW! GONDOLA HOOD WITH SHOCK-SPRING COIL SKID
NEW! GONDOLA ROOFS
NEW! SAFE-CARGO
NEW! RoLLoK MOVABLE BULKHEADS
NEW! ECONO-GUARD... LOW-COST ANCHOR WALL LINERS

Anchor Rails for Piggy-Back Trailers. Complete Car Repair Parts and Service. Send for booklet showing in detail how these Yocar products will save you money.

YOCAR YOUNGSTOWN STEEL CAR CORP.
NILES, OHIO

the Sign of

Burlington Route

Dependable Freight Transportation

"Everywhere West"

CHICAGO, BURLINGTON & QUINCY RAILROAD

DAMAGE-REDUCING "Durabox Shipper" resembles conventional nailed honeydew melon flat, except for heavy cleated end construction and steel girth wires around ends. Tested melons arrived in "excellent" shape.

Damage Reducer

New Box Cuts Melon Damage

Successful tests of a new shipping container give promise of some relief from traditionally high damage claims (averaging $26.29 per car in 1959) on honeydew melons.

The new package—a wirebound Durabox Shipper—is similar in appearance to the standard crate, but radically different in construction. Outside dimensions are identical, the nailed-on lid is the same, and both old and new containers use an excelsior bottom cushion.

The new Durabox Shipper differs in several respects, however, from the standard flat. The ends are framed by heavy wood cleats that make it easier to handle by providing natural handholds. It is reinforced by strong steel wires that circle its girth on both ends. And the heavy end construction allows all side-grain nailing, which was not possible with the thinner, one-piece end on the old-fashioned crate.

The new container is fashioned after the Durabox field crate. It is completely pre-fabricated by wirebound box makers; shipped flat; and assembled by the user simply by folding and engaging two pairs of loops.

Melons are loaded in the Durabox Shipper according to conventional patterns, and the boxes lidded on regular nailing machines. The filled boxes are loaded in freight cars crosswise, four wide, eight high, 20 long—640 to a car—with conventional bracing and standard refrigeration.

Test shipments from Rio Grande City, Tex., to New York showed "all packages intact; melons in good condition."

TEXARKANA'S location suggested its name. Its environs extend across the line between Texas and Arkansas, and the northern border of Louisiana is near-by. ☐ From this primary city our Texarkana territory radiates into southwestern Arkansas, northeastern Texas and southeastern Oklahoma. Other cities include Atlanta, Texas; DeQueen, Hope, Magnolia and Nashville, Arkansas. ☐ Of major importance to Texarkana is the Red River arsenal at Defense, Texas, but more than a hundred other industries in the city proper help tremendously to support the economy of this busy southern metropolis. ☐ Principal products of our Texarkana territory come from the earth - cement, sand, gravel and stone; lumber and other forest products; refined products - plus the rich bounty of plantations and farms. ☐ The role of Kansas City Southern Lines in this growing productivity is an essential one - one that General Agent Gene Biagioli and all of us are striving to perform to the satisfaction of our many shipper friends in the Texarkana territory. ☐ J. W. SCOTT *Vice President - Traffic* KANSAS CITY 5, MISSOURI.

meet the folks who sell our Service

KANSAS CITY SOUTHERN Lines

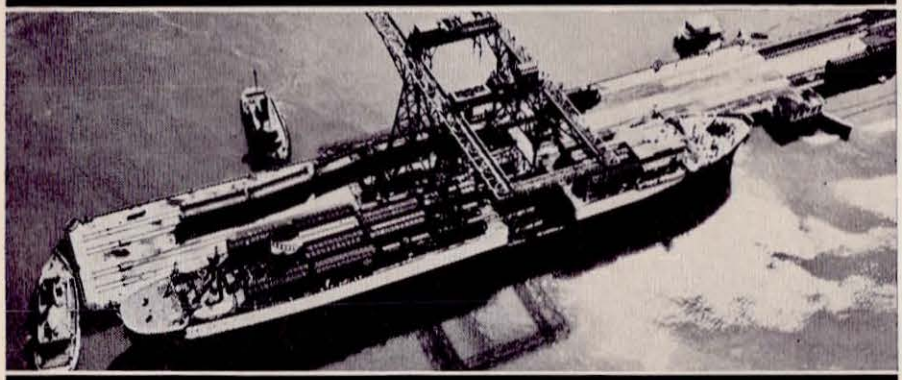
OUR TEXARKANA OFFICE
Kansas City Southern Bldg.
Texarkana 24, Texas

E. J. (GENE) BIAGIOLI began with KCS as a clerk at Heavener, Okla., 1926. Entered traffic department, Omaha, Nebr., 1934. After service in our New Orleans and Minneapolis offices, went to Texarkana as steno-clerk, 1938. Advanced to chief clerk, 1941, then, after supervising our central tracing bureau three years, was appointed general agent, Texarkana, 1954. Has three daughters; active in Lions, Baptist church and Gideons International.

JAMES L. WELLS began KCS tenure as a clerk at Chaison, Tex., 1942. Has been chief clerk, Texarkana, since 1950. Has two sons and devotes most free time to family and home.

SHIPSHAPE

SHIP SAFE



SHIP . . . SAVE

SHIP SEATRAIN

SEATRAIN LINES

General Offices: 595 River Road, Edgewater, N.J.
Offices in: Boston, Savannah, New Orleans, Houston, Dallas, Philadelphia

Shippers' Guide

Canadian National

. . . LCL Service

By combining passenger-train speed and dependability with highway truck flexibility in pickup and delivery, the CNR reports improvement of its LCL service in Canada's Maritime provinces. LCL shipments out of Moncton, N.B., are now forwarded in box baggage cars on the westbound Halifax-Montreal "Maritime Express" at 12:15 a.m.; delivered in the Bathurst area that same morning, and fanned out to local Caraquet Coast points by truck. On shipments from Halifax, N.S., New Glasgow, Charlottetown, P.E.I., and Summerside, the new box-baggage service provides second-morning delivery in the Bathurst area; third-morning from Sydney, N.S. Service eastbound also has been improved.

Chesapeake & Ohio

. . . Service Changes

Has inaugurated a combination daily LCL merchandise car from Norfolk, Va., to Newport News and Richmond; and discontinued cars from Norfolk direct to Richmond, from Cincinnati to Newport News, and from Cincinnati to Spencer Transfer, N.C. (Southern).

New Haven

. . . Freight Schedules

Has published a new directory of freight train and package car schedules.

Traffic Publications

NEW BOOKS

ADVANCED TRAFFIC MANAGEMENT, by Kenneth U. Flood, associate professor of transportation, Georgia State College of Business Administration. 398 pages. William C. Brown Co., Dubuque, Iowa. $6.50.

Described as "one of the few advanced books in the field of traffic management," this publication is intended for use both by industrial traffic managers and railroad and motor carrier personnel. Out of his experience as a teacher of transportation and as a member of the Georgia and ICC bars, Prof. Flood covers such topics as the buying and selling of transportation; distinction between inter- and intrastate commerce; freight tariffs, classification and rates; shipping documents; weighing; routing, and claims.

FROM THE MANUFACTURER

SPARTON EASY LOADER. Technical brochure SR-2. 8 pages. Illustrations. Sparton Railway Equipment Division, 17333 Healy ave., Detroit 12.

Shows detailed designs, loading and unloading techniques and flexibility for various types of lading of the Sparton Easy Loading system for freight cars.

Ideas For Better Shipping

Pressure Tape Makes Big Ones Out of Little Ones

A "bundling" technique, described as "fast and economical," expedites the handling of small shipments (package freight consisting of from two to five cartons).

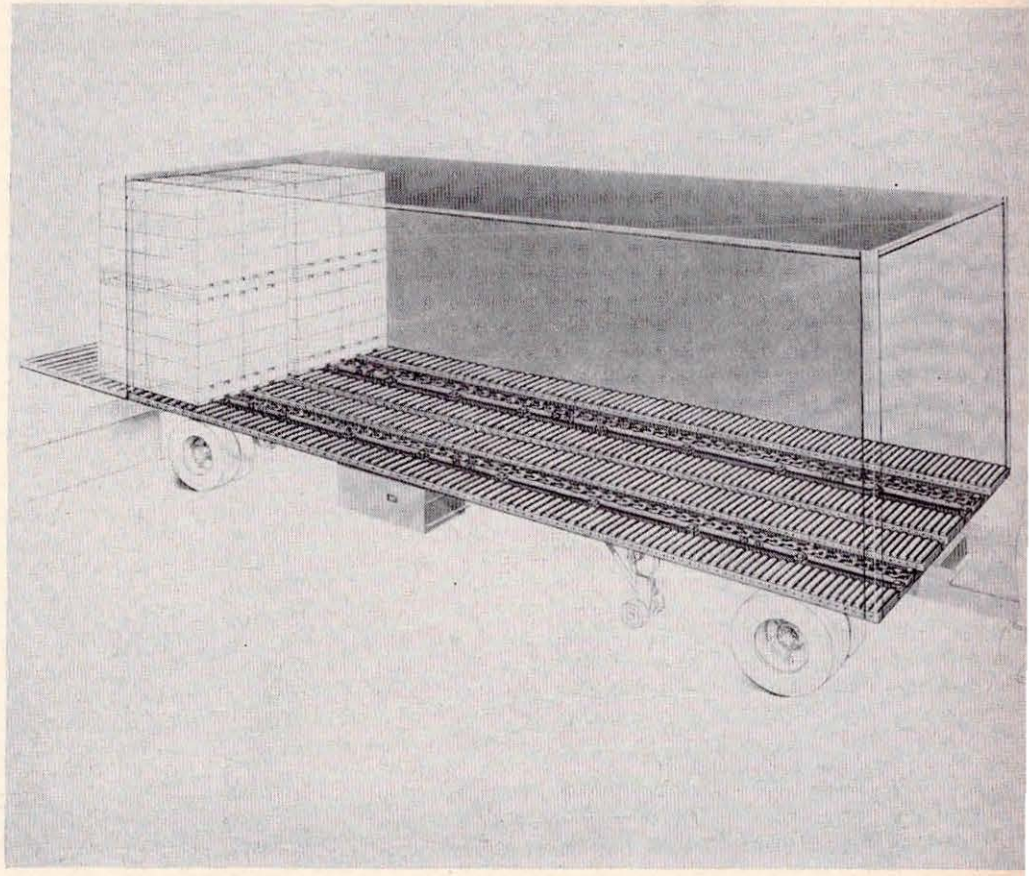
The shipment is simply stacked onto a bundling jig and taped together with "Scotch" brand reinforced, pressure-sensitive filament tape. Almost any sizes or shapes of cartons can be bundled, using almost any type of jig, so long as it provides a stable foundation.

The resulting combination of small packages into fewer larger ones cuts handling time, and is expected to reduce possibility of losses or errors in loading or routing.

Full information on the method is included in Circular P-PFTL, which is available from Dept. JO-122, Minnesota Mining & Mfg. Co., 900 Bush Ave., St. Paul 6, Minn.

Built-in Roller Conveyor Speeds Truck Loading

A new method of handling palletized shipments is said to permit complete loading or unloading of a 32-ft trailer in 1½ min. The manufacturer also claims that the device reduces capital investment in trailers; eliminates "stand around" time of loading crews; and avoids possible damage to trailer beds and walls from fork-truck loading. This "Air Chain" system consists of two rows of roller conveyors with a drag chain centered between them. The chain, mounted in a track bolted to the trailer bed, rides on a flexible steel wearing strip which rests on an inflatable rubber hose. Inflating the hose raises the chain to the level of the conveyor rollers, and presses it against the bottom of the pallet. Movement of the chain then moves the pallet. The chain may be reversed for unloading. With hose deflated, the rollers become an ordinary conveyor. Air controls and chain power supply are attached in accessible position under the trailer. Alvey Conveyor Manufacturing Co., 9301 Olive Street Rd., St. Louis 32, Mo., is the manufacturer.



(*Continued from page 42*)

where refuse and trash are permitted to accumulate. Broken crates, pieces of lumber, scrap machine parts, when strewn haphazardly on or adjacent to the roadbed, are a major cause of tripping accidents.

When pipe trenches or building foundations are excavated adjacent to side tracks, care must be taken to shore the trench to prevent collapse which might carry the track bed with it. Spoil banks of soil and stone should be deposited clear of track clearances and properly sloped. Every precaution, day and night, should be made to warn railroad employees of open trenches, as their shifting operations often require them to jump off moving cars.

At plants where food is processed, it is common practice to place rat trap devices at walls and building corners adjacent to tracks. Some traps can cause serious leg injury to brakemen if placed inside safe clearance limits.

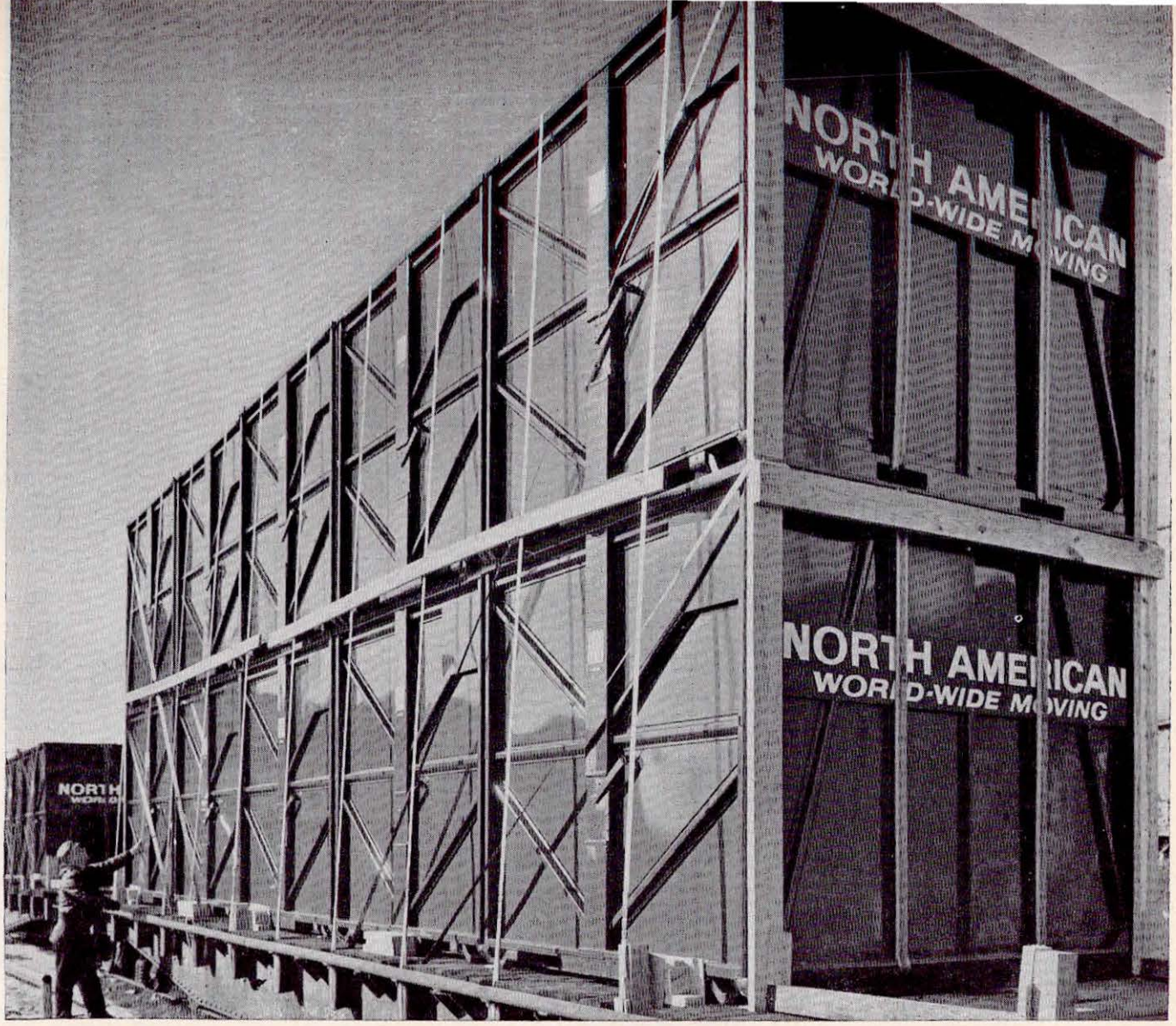
4) **Accessories and Devices**—A regular schedule of cleaning of fuses and replacement of lamps is necessary for maintaining an efficient signal system. Micro-switches and other interlocking devices should be inspected and tested regularly to insure that apparatus is in proper condition for service. Normal functioning of any electrical device should not be defeated by mechanical means.

On sidings with grades descending toward the main track, where gravity may cause a car to overrun the clearance point and foul the parent track, derails are commonly installed. Regular inspection is required as to proper attachment and functioning of sliding or hinged derails.

A further precaution against runaway freight cars spotted on side tracks is the installation of wheel chocks. If a side track is on a grade, the railroad should set the hand wheel brake of the last car into the siding. The additional application of standard wheel chocks will arrest car motion and offset any failure to set the hand brake.

Most side tracks require an end bumper to prevent cars from running off the end of the track during shifting operations. Conventional bumpers should be made of steel and braced securely to the rails to withstand thrust. At many plants, homemade bumpers are used consisting of logs or ties chained together and lashed to the rails; sometimes, just a pile of earth is used. While reasonably effective these bumper rigs are usually not designed to withstand the shock of a

(*Continued on page 54*)



10,000-pound capacity container weighs only 1,670 pounds. Built by Highway Trailer Company, Stoughton, Wisconsin, using USS COR-TEN High-Strength, Low-Alloy Steel.

For all-purpose cargo containers, USS High-Strength Steels supply maximum strength with light weight

High strength steel offers the most economical strength-to-weight ratio of any material used for all-purpose cargo containers. And with USS COR-TEN High-Strength, Low-Alloy Steel, you get the *plus* values of high resistance to atmospheric corrosion, good toughness for resistance to shock and impact, and longer life for the paint job.

Cargo containers must take rough handling since they are used again and again. They need the extra strength and stiffness supplied by USS COR-TEN Steel's high yield point of 50,000 psi. This factor also permits substantial weight reduction with a resultant increase in payload.

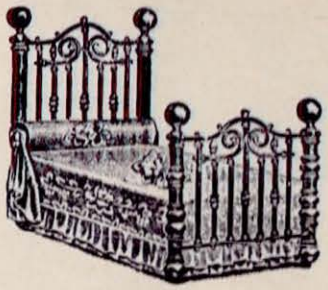
Experience has shown that light weight *alone* is not enough for economical service. Containers like these shown have already made *twelve* round trips overseas with payloads both ways. Maintenance has been negligible and contents were protected against damage and pilfering. These containers have 348 cubic feet or 10,000 lb. capacity—about 6% more than their predecessors—and they weigh 300 pounds less, due to the use of USS COR-TEN Steel.

In marine, trucking and railroad container applications, USS COR-TEN Steel has proved highly satisfactory. For more information on USS COR-TEN Steel, write to United States Steel, 525 William Penn Place, Pittsburgh 30, Pennsylvania.

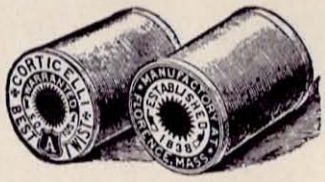
USS and COR-TEN are registered trademarks

This mark tells you a product is made of modern Steel.

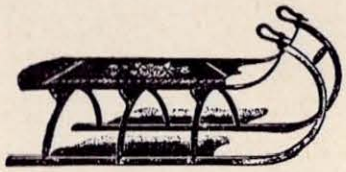
United States Steel Corporation—Pittsburgh
Columbia-Geneva Steel—San Francisco
Tennessee Coal & Iron—Fairfield, Alabama
United States Steel Supply—Steel Service Centers
United States Steel Export Company
United States Steel



For shipping beds



or threads



or kiddies' sleds

The better way is Santa Fe

No matter what you ship call the nearest Santa Fe Traffic Office and let the longest railroad in the U.S.A. go to work for you.

Santa Fe

INDUSTRIAL RAILROADS

(*Continued from page 52*)

string of freight cars pushed beyond spotting limits.

Where only light freight service is carried out, rigid car stops may be substituted for conventional bumpers. These car stops may be clamped on the rail and repeated impacts will not affect their vertical alinement with car wheel flanges.

Liability Aspects

The shipper usually assumes the liability of a third party in a contract with a railroad under the usual side track agreement. In such an agreement, the shipper (sometimes referred to as "the industry") may lease or own a given section of track from the point of clearance of the railroad right-of-way to the end of the track on the industrial premises. The side track, therefore, is usually partly on railroad property and partly on shipper property.

Side track agreements are most comprehensive in defining shipper liability, and are generally subject to strict interpretation by the courts wherever intention is expressed in unequivocal terms.

Even with agreements, there may be variations in court interpretation of indemnifying clauses, law of restitution, customs or practices, joint negligence, etc., which may result in judgment against the shipper.

The important conclusion is that the shipper seldom escapes responsibility to some degree for railroad operational accidents occurring on his premises. It is necessary, therefore, for shipper management carefully to evaluate railroad hazards on premises and make every effort to apply effective control measures wherever applicable.

Car Builder Optimistic For Long-Range Growth

A "long-range growth situation" is seen by ACF in "the dwindling national freight car fleet, now near an 18-year low, and dynamic new developments in transportation equipment geared to shippers' economic needs." This was noted in the company's report for the fiscal year ended April 30. The company reported the sale of more than 1,300 85-ft piggyback flat cars during the year and 7,500 ACF-developed trailer hitches. A 613-car net addition to ACF's car-leasing fleet brought the total to 17,031 cars. A net gain of 750 cars is expected in fiscal 1961.

How did HE move up so fast?

Why do some men get ahead faster than others? Usually because they have better technical training.

Fortunately, it's not difficult to learn new skills for your present railroad job—or prepare for better jobs in railroading. You can do it at home—in your spare time—through the excellent technical training service offered by the Railway Educational Bureau.

The Railway Educational Bureau was organized over 50 years ago by the Union Pacific Railroad. A few years later, it became an independent organization in order to serve employees on all American Railroads. Today more than 70 American Railroads co-operate in making the Bureau's wide scope of service available to their employees. On the Bureau's Individual Service Plan, instruction, assignments and evaluation are handled entirely by mail. The low enrollment cost (less than 14¢ per day) entitles you to a very wide selection of subjects.

SEND THIS COUPON

We will mail you full details. Remember —*study clears the road to progress!*

The Railway Educational Bureau
1809 Capitol Avenue, Omaha 2, Nebraska

I am interested in subjects related to the railroad jobs checked below. Please send full details. I understand this inquiry will not obligate me in any way.

- ☐ Machinist
- ☐ Electrician
- ☐ Carman
- ☐ Car Inspector
- ☐ Sheet Metal Worker
- ☐ Pipefitter
- ☐ Boilermaker
- ☐ Blacksmith
- ☐ Apprentice
- ☐ Lineman
- ☐ Wireman
- ☐ Fireman
- ☐ Engineer
- ☐ Draftsman
- ☐ Signal Maintainer
- ☐ Engineering Dept.
- ☐ Mechanical Dept. Office
- ☐ Official, Supervisor, Foreman, Chief Clerk
- ☐ Other (please specify)

Name_____

RR_____ Job_____

Address_____

City_____ Zone____ State____

REVENUES AND EXPENSES OF RAILWAYS

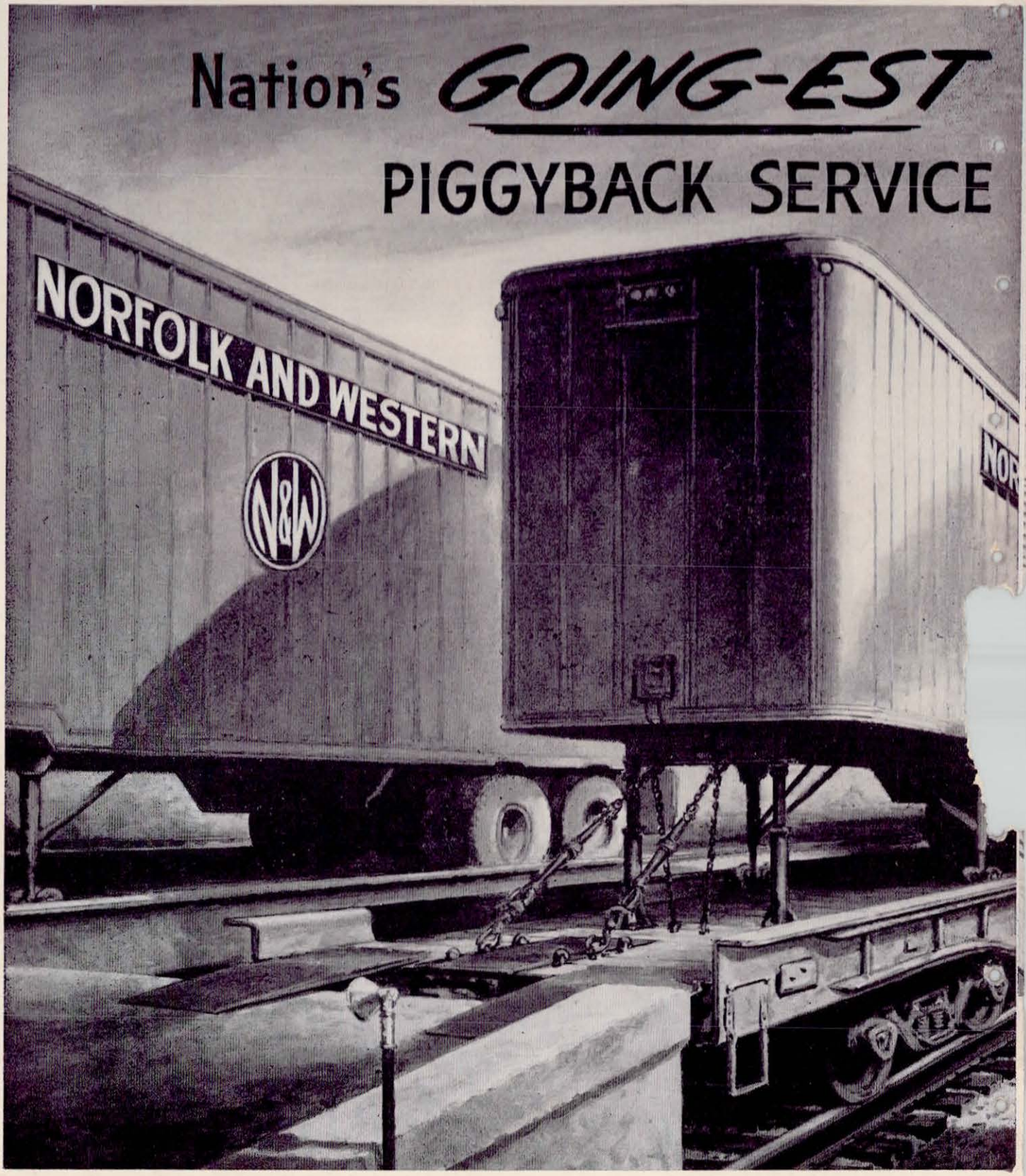
(Dollar figures are stated in thousands: i.e., with last three digits omitted)

MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1960

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1960	1959	Operating Expenses: Maint. Way and Structures: Total	1959	Deprec and Retirements	Maint. Equipment: Total	1959	Deprec. and Retirements	Traffic	Transportation	Total 1960	1959	Operating ratio 1960	1959	Net from railway operation	Railway tax accruals	Net Railway operating income 1960	1959
Akron, Canton & Youngstown	May	171	490	....	506	518	57	67	6	71	81	15	44	161	378	392	74.7	75.8	128	83	43	36
	5 mos.	171	2,462	....	2,525	2,563	289	304	28	394	363	76	227	782	1,932	1,871	76.5	73.0	593	369	193	224
Alabama, Tennessee & Northern	May	214	168	....	171	255	55	50	6	46	11	6	5	115	224	155	130.7	61.0	—53	Cr. 50	—55	5
	5 mos.	214	1,199	....	1,218	1,511	271	249	32	81	50	28	22	451	842	750	69.1	49.6	376	64	20	163
Atchison, Topeka & Santa Fe	May	12,970	44,023	3,236	51,913	54,324	7,897	7,108	760	10,772	9,963	2,449	1,513	19,919	42,434	40,116	81.7	73.8	9,479	5,788	2,644	5,060
	5 mos.	12,970	218,081	14,223	255,796	258,913	31,467	32,228	3,705	53,682	51,850	12,237	6,991	94,567	198,089	193,063	77.4	74.6	57,707	35,707	19,010	24,658
Atlanta & St. Andrews Bay	May	81	306	....	310	386	35	45	3	30	31	8	7	79	173	184	55.9	47.8	137	57	40	71
	5 mos.	81	1,576	....	1,602	1,617	182	209	18	141	158	39	37	378	857	885	53.5	54.7	745	335	222	237
Atlanta & West Point	May	93	243	22	313	333	41	40	8	48	52	14	19	129	259	267	82.7	80.2	54	18	8	29
	5 mos.	93	1,186	114	1,560	1,585	212	209	39	254	254	71	91	652	1,320	1,329	84.6	83.8	240	93	16	49
Western of Alabama	May	133	278	20	336	361	43	56	10	53	61	19	22	144	285	302	85.0	83.8	50	36	10	17
	5 mos.	133	1,407	106	1,711	1,752	236	249	47	304	296	95	107	703	1,462	1,452	85.5	82.9	249	191	45	91
Atlantic Coast Line	May	5,573	12,641	1,011	14,691	14,311	1,950	2,147	181	2,630	2,415	704	516	5,582	11,398	11,265	77.6	78.7	3,293	1,675	898	1,447
	5 mos.	5,573	60,918	7,634	74,097	71,718	10,196	9,863	923	12,772	12,425	3,371	2,548	28,015	57,574	56,024	77.7	78.1	16,523	7,775	5,227	5,305
Baltimore & Ohio	May	5,909	30,312	1,602	34,810	38,100	3,862	4,273	530	6,413	6,739	1,078	968	14,612	27,792	29,261	79.8	76.8	7,019	2,503	2,498	4,608
	5 mos.	5,910	147,904	6,778	168,232	167,146	18,381	18,101	2,542	33,874	30,200	5,417	4,850	72,865	139,648	134,203	83.0	80.3	28,584	12,565	6,177	13,777
Staten Island Rap. Transit	May	29	177	92	278	271	53	49	12	45	39	2	2	151	283	275	101.7	101.3	—5	50	—73	—71
	5 mos.	29	824	454	1,325	1,407	286	279	56	236	200	9	11	763	1,456	1,445	109.9	102.6	—131	249	—473	—389
Bangor & Aroostook	May	602	1,107	18	1,178	1,208	315	272	23	249	298	110	36	349	1,045	1,039	88.7	86.0	133	97	180	135
	5 mos.	602	7,217	101	7,557	7,221	1,966	1,793	103	1,384	1,476	551	174	2,068	6,018	5,862	79.6	81.2	1,539	496	1,222	968
Bessemer & Lake Erie	May	203	2,742	....	2,817	3,841	305	234	25	658	703	137	39	535	1,711	1,718	60.7	44.7	1,105	851	639	1,088
	5 mos.	203	9,650	....	10,148	9,528	1,221	1,145	125	3,165	3,245	634	186	2,390	7,777	7,654	76.6	80.3	2,372	2,565	1,620	1,624
Boston & Maine	May	1,557	5,045	460	5,983	6,541	639	769	151	886	856	246	167	2,485	4,529	4,862	75.7	74.3	1,455	441	444	667
	5 mos.	1,557	25,355	2,396	30,121	31,935	3,348	4,027	724	4,411	4,413	1,243	821	12,548	22,953	25,543	76.2	80.0	7,167	2,268	2,074	1,309
C. P. R. in Maine	May	234	339	38	403	521	103	157	20	68	78	17	20	148	364	420	90.4	80.6	39	31	—36	6
	5 mos.	234	4,195	208	4,543	4,206	460	637	101	589	653	88	102	1,074	2,366	2,526	52.1	60.1	2,177	175	1,548	1,067
Carolina & Northwestern	May	284	242	....	247	265	31	41	8	24	30	21	5	79	152	172	61.4	64.9	96	19	43	27
	5 mos.	284	1,309	....	1,337	1,399	140	236	35	134	158	105	27	402	772	892	57.5	63.8	566	110	207	155
Central of Georgia	May	1,745	3,387	112	3,718	3,790	599	581	43	764	693	189	178	1,488	3,222	3,144	86.7	82.9	496	281	173	374
	5 mos.	1,745	16,645	625	18,384	18,525	2,934	2,871	216	3,761	3,454	951	877	7,338	15,902	15,493	86.5	83.6	2,481	1,402	1,014	1,733
Central of New Jersey	May	593	3,502	452	4,351	4,667	498	534	96	690	838	141	64	2,072	3,533	3,832	81.2	82.1	818	513	—39	154
	5 mos.	594	17,434	2,319	21,563	21,830	2,465	2,501	484	3,595	4,100	676	380	10,693	18,342	18,946	85.1	86.8	3,221	2,479	—990	—390
Central Vermont	May	375	737	29	836	984	254	221	17	117	111	9	21	338	770	748	92.1	76.0	66	55	—118	57
	5 mos.	375	3,477	238	4,060	4,391	800	834	87	592	567	47	95	1,665	3,354	3,484	82.6	79.3	706	276	—104	41
Chesapeake & Ohio	May	5,122	29,153	588	31,399	32,970	3,600	3,540	475	5,248	5,217	1,900	837	10,979	22,253	22,329	70.9	67.7	9,147	4,488	4,997	6,019
	5 mos.	5,122	136,993	2,443	146,076	148,452	16,700	15,950	2,364	26,572	25,648	9,500	4,243	53,179	108,645	108,030	74.4	72.8	37,432	17,961	20,809	24,455
Chicago & Eastern Illinois	May	862	2,524	159	2,961	3,218	395	359	31	555	549	179	131	1,202	2,458	2,418	83.0	75.1	503	238	68	330
	5 mos.	862	12,154	778	14,379	15,521	1,812	1,805	156	2,672	2,525	912	684	5,971	12,014	11,925	83.6	76.8	2,365	1,147	510	1,471
Chicago & Illinois Midland	May	121	616	....	626	696	45	45	9	96	101	23	30	163	380	389	60.7	55.9	246	139	92	126
	5 mos.	121	3,191	....	3,252	2,959	F220	196	37	523	499	116	151	781	1,919	1,776	59.0	60.0	1,333	752	530	469
Chicago & North Western	May	9,280	15,658	1,391	18,261	19,734	2,989	3,366	320	2,982	3,032	1,009	572	7,346	14,898	15,988	81.6	81.0	3,363	1,386	883	1,654
	5 mos.	9,280	70,333	6,948	83,163	89,453	13,321	14,092	1,832	14,546	15,528	5,058	2,827	36,439	72,257	77,367	86.9	86.5	10,906	6,798	—771	1,470
Chicago, Burl. & Quincy	May	8,659	16,651	1,633	20,613	21,591	2,859	3,641	414	3,544	4,452	1,125	632	8,423	16,494	18,661	80.0	86.4	4,119	2,417	1,618	1,095
	5 mos.	8,662	81,687	7,661	100,156	108,922	12,717	14,208	1,943	18,912	21,979	5,470	3,229	41,736	81,604	87,679	81.5	80.5	18,552	10,623	6,941	7,838
Chicago Great Western	May	1,469	2,570	6	2,808	2,961	376	430	44	416	425	127	120	983	1,992	2,037	70.9	68.8	816	338	220	325
	5 mos.	1,469	12,614	33	13,648	14,134	1,679	1,975	219	2,111	2,117	637	626	4,814	9,642	9,816	70.7	69.4	4,005	1,581	1,160	1,612
Chicago, Milw. St. Paul & Pac	May	10,598	15,443	1,216	18,976	20,400	3,306	3,737	432	3,460	3,406	881	589	7,674	16,149	17,089	85.1	83.8	2,827	1,728	93	954
	5 mos.	10,598	76,369	5,383	91,874	97,918	14,030	14,930	2,149	16,857	17,624	4,395	2,810	38,678	78,288	81,933	85.2	83.7	13,586	8,450	1,008	4,089
Chicago, R. Is. & Pacific	May	7,527	14,610	1,296	17,595	18,599	2,392	2,462	261	3,187	3,255	660	567	7,161	14,261	14,739	81.1	79.2	3,334	1,391	552	840
	5 mos.	7,526	72,450	6,608	87,544	92,475	10,928	11,342	1,236	15,194	16,281	3,269	2,784	36,015	69,745	72,344	79.7	78.2	17,799	7,776	3,368	4,568
Clinchfield	May	293	1,791	....	1,799	1,801	211	236	24	368	320	107	67	442	1,155	1,144	64.2	63.5	644	209	547	609
	5 mos.	293	8,690	....	8,736	9,166	982	1,126	113	1,756	1,611	533	330	2,252	5,668	5,684	64.9	62.0	3,068	1,039	2,729	3,148
Colorado & Southern	May	712	1,097	65	1,343	1,515	162	443	11	198	240	79	36	568	1,037	1,346	77.2	88.8	306	175	132	58
	5 mos.	712	5,411	304	6,532	6,887	822	1,177	124	1,092	1,181	394	176	2,676	5,120	5,639	78.4	81.9	1,412	784	556	402
Ft. Worth & Denver	May	1,362	1,247	126	1,574	1,751	244	412	31	294	257	46	74	785	1,521	1,700	96.6	97.1	53	Cr. 51	—87	—89
	5 mos.	1,362	7,686	603	9,343	9,706	1,114	1,799	165	1,169	1,399	232	364	4,048	7,319	8,411	78.3	86.7	2,024	642	316	—42
Colorado & Wyoming	May	39	156	....	296	430	34	27	2	28	34	12	2	119	200	222	67.6	51.5	196	61	29	84
	5 mos.	39	1,130	....	2,009	1,965	111	108	11	159	201	62	11	726	1,098	1,072	54.7	54.5	911	539	332	353
Delaware & Hudson	May	763	3,503	92	3,749	4,115	422	418	62	892	741	201	116	1,399	3,070	2,979	81.9	72.4	679	373	393	654
	5 mos.	763	18,182	628	19,538	19,809	2,016	2,023	299	4,398	3,551	995	542	7,155	15,479	14,922	79.2	75.3	4,060	1,903	2,476	2,773
Delaware, Lack. & Western	May	941	4,390	732	5,872	6,254	560	554	151	1,059	939	339	205	3,045	5,232	5,106	89.1	81.6	640	699	—257	372
	5 mos.	941	22,169	3,812	29,912	30,223	2,932	2,907	748	5,518	5,334	1,702	1,005	15,547	26,889	26,902	89.9	89.0	3,023	3,481	—1,604	—605
Denver & Rio Grande Western	May	2,128	5,992	201	6,392	6,656	834	979	93	986	993	325	237	2,043	4,412	4,643	69.0	69.8	1,981	1,155	829	886
	5 mos.	2,128	30,155	982	32,143	31,321	3,584	3,600	467	4,935	4,830	1,633	1,182	10,167	21,363	21,254	66.5	67.9	10,780	6,228	4,542	4,704
Detroit & Toledo Shore Line	May	50	544	....	589	624	55	56	4	74	87	24	21	229	396	411	67.3	65.8	192	78	32	48
	5 mos.	50	3,004	....	3,230	3,581	280	318	20	392	447	120	101	1,195	2,056	2,177	63.7	60.8	1,173	419	195	311
Detroit, Toledo & Ironton	May	465	1,616	....	1,690	1,911	269	263	35	458	465	150	57	494	1,348	1,392	79.8	72.9	342	128	241	383
	5 mos.	465	9,026	....	9,486	10,097	1,318	1,361	151	2,169	2,051	755	295	2,574	6,839	6,801	72.1	67.4	2,647	639	1,940	2,462
Duluth, Miss. & Iron Range	May	575	6,442	....	7,530	8,340	544	552	72	615	604	212	13	1,732	3,202	3,246	42.5	38.9	4,328	554	3,758	4,499
	5 mos.	575	11,695	3	13,635	12,257	2,342	2,497	394	3,429	3,023	1,012	68	5,045	12,220	11,491	89.6	93.8	1,415	1,383	135	—492
Duluth, So. Shore & Atlantic	May	544	600	2	652	789	110	124	10	109	103	26	33	227	503	514	77.1	65.1	149	44	118	228
	5 mos.	544	2,576	12	2,735	2,855	518	546	53	531	570	131	167	1,002	2,343	2,381	85.7	83.4	392	209	129	239

(Continued on page 58)

a RAILWAY AGE Service Page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GENERAL OFFICES • ROANOKE, VIRGINIA

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands: i.e., with last three digits omitted)

MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1960

Name of Road		Average mileage operated during period	Operating Revenues				Operating Expenses									Operating ratio		Net from railway operation	Railway tax accruals	Net Railway operating income	
							Maint. Way and Structures			Maint. Equipment											
			Freight	Pass.	Total (inc. misc.) 1960	Total (inc. misc.) 1959	Deprec. and Retirements	Total	Total	Deprec. and Retirements	Total	Traffic	Transportation	Total 1960	Total 1959	1960	1959			1960	1959
Duluth, Winnipeg & Pacific	May	175	441	....	447	517	5	61	97	105	50	1	7	181	356	358	79.7	69.3	91	42	—20	30
	5 mos.	175	2,370	3	2,402	2,394	26	290	404	428	299	6	36	903	1,685	1,712	70.1	71.5	717	214	94	59
Elgin, Joliet & Eastern	May	205	3,186	....	4,385	4,976	29	938	409	382	1,075	111	39	1,653	3,400	3,743	77.5	75.2	985	570	217	258
	5 mos.	205	18,248	....	24,340	24,690	148	4,431	1,799	1,439	4,030	609	214	9,348	17,659	16,727	72.6	67.7	6,681	3,401	1,425	2,216
Erie	May	2,239	11,096	547	12,793	14,353	231	2,231	1,433	1,639	2,257	546	352	6,193	10,970	11,483	85.8	80.0	1,824	1,279	—253	921
	5 mos.	2,239	58,145	2,749	66,608	66,194	1,144	11,260	6,674	6,796	10,645	2,766	1,832	31,293	54,747	54,557	82.2	82.4	11,861	6,144	1,758	2,309
Florida East Coast	May	572	2,235	312	2,864	2,836	49	490	372	432	558	116	84	1,044	2,166	2,308	75.6	81.4	699	216	305	114
	5 mos.	572	11,429	2,601	15,549	16,200	227	2,828	2,088	2,319	3,123	586	440	5,625	11,958	12,862	76.9	79.4	3,592	1,141	1,167	951
Georgia Railroad	May	321	574	15	676	725	8	111	80	97	129	34	41	290	560	627	82.9	86.5	116	41	83	79
	5 mos.	321	2,654	76	3,177	3,398	42	573	422	497	626	169	200	1,468	2,855	3,081	89.9	90.7	322	210	202	191
Georgia & Florida	May	321	273	....	278	295	3	44	152	85	39	10	22	83	320	251	114.9	84.9	—41	22	—80	—1
	5 mos.	321	1,371	....	1,402	1,566	18	212	571	389	205	50	115	452	1,448	1,279	103.3	81.6	—46	104	—243	53
Grand Trunk Western	May	951	4,000	166	4,657	5,138	106	926	803	633	996	112	101	2,256	4,320	4,407	92.8	85.8	337	410	—612	—219
	5 mos.	951	21,345	988	24,631	25,488	329	4,347	3,399	3,290	4,550	562	468	11,391	20,821	22,012	84.5	86.4	3,810	2,027	—532	—1,316
Great Northern	May	8,312	20,224	700	22,682	22,863	328	3,750	4,064	3,984	4,648	877	535	7,567	16,884	17,809	74.4	77.9	5,799	3,378	2,042	1,747
	5 mos.	8,298	85,429	3,102	95,185	97,071	1,548	18,956	14,280	14,403	19,399	4,352	2,881	36,545	77,510	78,131	81.4	80.5	17,675	10,744	5,638	6,603
Green Bay & Western	May	219	345	....	357	396	5	47	55	56	53	9	29	119	276	286	77.3	72.1	81	44	15	33
	5 mos.	219	1,781	....	1,844	1,941	24	233	252	267	239	43	140	593	1,346	1,384	73.0	71.3	498	252	85	144
Gulf, Mobile & Ohio	May	2,752	6,043	221	6,696	7,020	914	938	81	1,316	1,371	294	293	2,341	5,215	5,345	77.9	76.2	1,481	560	448	461
	5 mos.	2,752	29,409	1,138	32,788	34,349	4,412	4,547	376	6,783	6,807	1,469	1,472	11,553	26,025	26,240	79.4	76.4	6,764	2,924	1,830	2,316
Illinois Central	May	6,500	17,843	1,685	22,022	22,913	3,304	3,367	398	4,428	4,267	876	646	8,804	18,270	18,213	83.0	79.5	3,752	1,927	1,010	1,590
	5 mos.	6,500	88,681	8,924	109,505	111,284	16,090	16,498	1,866	21,561	21,377	4,279	3,254	43,296	89,705	90,714	81.9	81.5	19,801	11,229	4,903	6,691
Illinois Terminal	May	335	683	....	774	917	75	114	4	145	208	23	45	317	636	792	82.1	86.3	138	46	—	—18
	5 mos.	335	3,374	....	3,786	4,351	402	501	16	736	940	138	235	1,555	3,207	3,758	84.7	86.4	579	146	19	—49
Kansas City Southern	May	891	3,377	72	3,805	4,001	330	346	51	513	522	113	96	1,210	2,284	2,299	60.0	57.5	1,521	630	652	699
	5 mos.	891	16,461	311	18,562	19,149	1,382	1,484	249	2,529	2,480	565	486	5,961	11,011	10,910	59.3	57.0	7,550	3,191	3,052	3,435
Kansas, Oklahoma & Gulf	May	327	407	....	430	391	38	64	7	38	38	12	32	117	254	258	59.0	65.9	176	94	40	36
	5 mos.	327	2,095	....	2,121	2,462	187	289	38	204	180	60	170	540	1,245	1,268	58.7	51.5	876	403	251	437
Lake Superior & Ishpeming	May	160	623	....	796	888	62	94	12	77	70	35	2	163	323	360	40.5	40.6	473	112	375	504
	5 mos.	160	1,206	....	1,553	1,464	258	304	60	381	319	178	10	470	1,209	1,173	77.9	80.1	344	289	110	156
Lehigh & Hudson River	May	96	270	....	271	294	29	33	2	30	26	8	18	106	202	201	74.6	68.5	69	23	10	16
	5 mos.	96	1,275	....	1,279	1,368	127	154	12	153	150	42	81	534	989	1,017	77.4	74.3	289	103	9	38
Lehigh & New England	May	177	381	....	384	594	36	73	7	191	180	38	11	152	436	540	113.5	91.0	—52	28	21	185
	5 mos.	177	1,646	....	1,663	2,390	216	303	37	860	757	193	77	814	2,213	2,416	133.1	101.1	—550	142	—282	450
Lehigh Valley	May	1,127	4,039	104	4,334	4,933	619	499	96	706	744	151	133	2,183	3,859	4,078	89.0	82.7	475	475	—257	223
	5 mos.	1,127	21,406	609	23,029	23,787	3,058	2,868	484	3,966	4,367	878	683	11,535	20,393	21,668	88.6	91.1	2,635	2,354	—872	—1,110
Long Island	May	344	1,006	4,839	6,078	5,875	850	817	107	1,073	1,111	169	47	2,947	5,160	5,136	84.9	87.4	918	423	285	164
	5 mos.	344	5,015	23,213	29,338	27,811	4,305	3,946	537	5,569	5,416	846	221	14,929	26,174	25,160	89.2	90.5	3,164	2,086	26	—149
Louisiana & Arkansas	May	746	1,864	39	2,037	2,177	241	228	20	309	315	98	79	687	1,396	1,390	68.5	63.9	641	325	199	290
	5 mos.	746	9,858	194	10,737	10,481	983	944	100	1,581	1,451	489	397	3,404	6,761	6,493	63.0	62.0	3,976	1,966	1,408	1,449
Louisville & Nashville	May	5,684	17,794	662	19,856	20,618	1,900	2,758	313	4,717	3,937	1,170	522	7,736	15,801	15,765	79.6	76.5	4,055	2,846	1,378	2,186
	5 mos.	5,684	86,441	3,291	97,198	97,541	11,300	13,256	1,568	20,953	20,364	5,734	2,499	37,604	77,127	78,279	79.4	80.3	20,071	13,690	7,342	7,991
Maine Central	May	936	1,932	16	2,072	2,094	361	376	28	379	380	82	31	700	1,574	1,663	75.9	79.4	499	239	174	151
	5 mos.	936	10,279	106	11,028	0,838	1,740	1,859	141	1,925	1,917	415	154	3,800	8,184	8,686	74.2	80.1	2,844	1,341	977	757
Minneapolis & St. Louis	May	1,391	1,682	....	1,731	1,887	237	334	29	292	381	97	117	641	1,423	1,607	82.2	85.1	308	183	85	131
	5 mos.	1,391	8,205	3	8,452	8,954	1,235	1,343	147	1,473	1,628	502	609	3,125	7,130	7,598	84.4	84.9	1,322	857	307	551
Minn., Northfield & Southern	May	77	305	....	325	412	27	21	3	43	42	13	36	88	232	234	71.5	56.8	93	57	29	65
	5 mos.	77	1,492	....	1,570	1,947	99	102	13	221	208	64	172	437	1,117	1,134	71.1	58.2	453	287	144	305
Minn., St. P. & S. Ste. Marie	May	3,222	2,889	48	3,121	3,661	540	741	49	625	678	142	103	1,342	2,827	3,139	90.6	85.7	294	298	—36	155
	5 mos.	3,222	13,532	177	14,485	16,317	2,611	3,016	241	3,107	3,505	716	551	6,767	14,038	15,102	96.9	92.6	447	956	—699	—335
Missouri-Illinois	May	172	497	....	500	546	34	49	7	90	97	40	13	148	298	303	59.6	55.6	202	149	83	153
	5 mos.	172	2,361	....	2,376	2,236	191	225	20	443	455	200	69	663	1,424	1,409	59.9	63.0	952	749	434	474
M-K-T Lines	May	2,917	4,389	70	4,827	5,170	501	645	85	881	954	262	177	1,789	3,652	3,840	75.7	74.2	1,175	358	311	388
	5 mos.	2,917	21,027	339	23,205	25,063	2,449	2,850	404	4,593	5,027	1,311	889	8,595	17,479	18,589	75.3	74.2	5,726	1,771	1,599	1,891
Missouri Pacific	May	9,413	21,774	905	25,139	26,077	3,570	3,590	341	4,286	4,469	966	743	9,642	19,256	19,905	76.6	76.3	5,882	1,883	2,674	2,657
	5 mos.	9,413	107,339	4,226	123,527	124,913	16,004	16,383	1,616	21,544	21,699	4,883	3,547	47,501	93,606	94,799	75.8	75.9	29,921	9,901	13,857	13,754
Monon	May	541	1,391	37	1,521	1,753	235	266	20	283	322	76	103	631	1,352	1,455	88.9	83.0	169	114	—24	121
	5 mos.	541	7,214	137	7,835	8,434	1,155	1,123	101	1,397	1,545	381	525	3,256	6,858	7,207	87.5	85.4	977	587	—45	447
Monongahela	May	177	553	....	555	413	72	69	13	56	60	11	1	107	254	292	45.8	70.6	301	Cr. 150	406	58
	5 mos.	177	2,962	....	2,973	2,079	366	323	62	274	283	55	4	700	1,430	1,657	48.1	79.7	1,543	162	1,112	66
New York Central	May	10,368	43,674	5,353	57,842	60,552	6,571	6,430	1,136	11,250	10,700	2,467	1,043	26,904	48,636	49,136	84.1	81.1	9,206	5,591	1,941	4,125
	5 mos.	10,368	222,452	28,376	292,938	293,343	31,457	31,292	5,451	56,250	53,500	12,221	5,373	135,975	244,000	245,206	83.3	83.6	48,938	28,422	11,095	12,632
Pitts. & Lake Erie	May	220	3,031	32	3,230	3,746	427	413	56	939	1,011	335	62	1,079	2,713	2,932	84.0	78.3	517	613	919	926
	5 mos.	220	15,669	175	16,668	16,140	2,092	1,829	282	4,445	4,718	1,664	313	5,797	13,705	13,856	82.2	85.9	2,963	3,640	5,163	4,427
New York, Chicago & St. Louis	May	2,170	12,217	111	12,773	14,128	1,582	1,502	168	2,209	2,312	479	347	4,950	9,576	9,584	75.0	67.8	3,197	1,602	1,125	1,859
	5 mos.	2,170	61,668	604	64,485	65,148	6,608	6,824	815	10,560	10,496	2,373	1,785	24,330	45,719	45,610	70.9	70.0	18,766	9,123	6,648	7,969
New York, N. H. & Hartford	May	1,762	6,281	3,644	11,473	12,631	1,457	1,555	270	1,188	1,737	461	130	5,738	10,119	10,501	88.2	83.1	1,354	995	—1,150	—287
	5 mos.	1,762	31,578	18,258	57,940	61,633	6,954	6,941	1,310	9,482	9,102	2,388	1,252	28,810	51,119	51,953	88.2	84.3	6,821	5,156	—5,857	—2,143
New York Connecting	May	21	306	....	336	367	126	54	25	41	17	...	....	116	288	163	85.5	44.5	49	97	—74	89
	5 mos.	21	1,567	....	1,743	1,758	403	282	127	102	63	...	...	524	1,050	807	60.2	45.9	694	452	101	394
New York, Sus. & Western	May	100	291	14	321	330	40	38	6	51	54	11	9	152	287	311	89.5	94.0	134	34	—41	—56
	5 mos.	100	1,558	73	1,716	1,711	218	198	34	259	277	53	45	784	1,469	1,541	85.6	90.1	247	169	—129	—170

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands: i.e., with last three digits omitted)

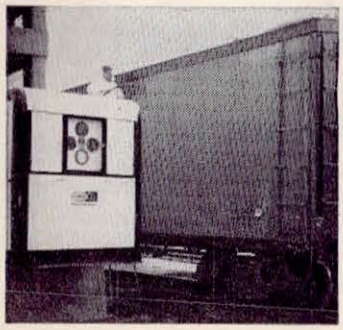
MONTH OF MAY AND FIVE MONTHS OF CALENDAR YEAR 1960

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1960	1959	Operating Expenses: Maint. Way and Structures: Total 1960	1959	Deprec and Retirements	Maint. Equipment: Total 1960	1959	Deprec and Retirements	Traffic	Transportation	Total 1960	1959	Operating ratio 1960	1959	Net from railway operation	Railway tax accruals	Net Railway operating income 1960	1959
Norfolk & Western	May	2,743	20,691	187	21,722	22,874	2,046	2,539	453	3,192	3,868	1,448	453	5,554	12,085	13,305	55.6	58.2	9,637	5,185	5,979	6,071
	5 mos.	2,743	100,726	978	106,181	107,510	11,134	12,059	22,085	17,139	18,763	7,365	1,969	28,198	62,255	65,825	58.6	61.2	43,925	23,409	27,550	26,020
Norfolk Southern	May	592	827	....	840	831	182	208	15	116	133	40	50	259	685	726	81.6	87.3	154	85	56	27
	5 mos.	592	3,822	....	3,886	3,941	831	949	72	632	635	201	246	1,247	3,278	3,478	84.4	88.3	608	354	226	68
Northern Pacific	May	6,828	13,320	474	14,824	15,734	2,690	2,619	274	2,704	2,819	819	449	5,817	12,513	12,798	84.4	81.3	2,310	1,674	851	1,018
	5 mos.	6,828	63,391	2,003	70,575	71,541	10,966	10,540	1,541	14,300	14,045	4,024	2,160	29,605	61,496	60,804	87.1	85.0	9,079	7,599	2,625	4,090
Northwestern Pacific	May	328	1,036	1	1,039	1,327	178	205	21	73	87	3	8	300	583	678	56.1	51.1	457	161	57	173
	5 mos.	328	4,946	2	4,970	5,847	1,010	1,091	93	359	419	13	39	1,500	3,038	3,329	61.1	56.9	1,932	604	139	592
Pacific Electric	May	353	1,007	....	1,146	1,293	209	212	23	35	51	3	22	555	923	1,011	80.5	78.2	223	139	—121	4
	5 mos.	354	4,963	....	5,610	5,977	904	953	117	179	273	18	111	2,553	4,259	4,570	75.9	76.5	1,351	723	—250	90
Pennsylvania	May	9,895	60,809	8,304	78,774	82,990	8,107	7,877	1,467	14,288	15,796	2,985	1,233	34,559	62,419	65,432	79.2	78.8	16,355	6,264	3,665	6,729
	5 mos.	9,895	296,472	44,160	387,129	379,509	38,792	37,434	7,335	74,705	76,585	14,726	6,147	173,219	314,654	314,875	81.3	83.0	72,475	30,375	11,531	13,439
Penn.-Reading S. S. Lines	May	338	559	64	650	735	176	470	25	123	133	26	7	478	835	1,155	128.5	157.1	—185	77	—440	—661
	5 mos.	338	2,811	283	3,206	3,181	877	1,217	126	623	656	129	38	2,400	4,201	4,569	131.0	143.7	—995	386	—2,234	—2,464
Piedmont & Northern	May	126	456	....	468	496	50	38	5	37	39	10	32	92	251	230	53.6	46.5	217	106	60	80
	5 mos.	126	2,388	....	2,450	2,473	233	201	23	189	174	49	159	469	1,246	1,147	50.9	46.4	1,204	578	340	402
Pittsburgh & West Virginia	May	132	651	....	655	932	147	147	25	149	156	45	75	170	599	697	91.5	74.8	56	25	38	115
	5 mos.	132	3,743	....	3,785	3,955	747	719	132	760	798	225	375	1,039	3,210	3,401	84.8	86.0	575	228	335	361
Reading	May	1,303	7,550	444	8,615	9,909	1,041	1,307	193	1,625	1,883	479	187	3,846	7,149	8,004	83.0	80.8	1,466	514	638	821
	5 mos.	1,303	40,987	2,496	46,606	46,097	5,494	5,545	953	8,899	8,984	2,412	963	20,150	37,893	38,310	81.3	83.1	8,713	3,062	3,127	3,457
Richmond, Fred. & Potomac	May	118	1,419	382	2,124	2,118	175	131	28	305	268	67	26	699	1,355	1,280	63.8	60.5	770	432	200	268
	5 mos.	118	6,728	2,295	10,845	10,378	870	755	146	1,471	1,449	334	145	3,461	6,703	6,909	61.8	66.6	4,142	2,384	1,262	1,000
Rutland	May	391	347	....	378	410	75	77	8	66	62	18	29	152	345	356	91.3	86.7	33	32	....	22
	5 mos.	391	1,671	....	1,807	1,988	373	377	43	299	304	91	140	754	1,700	1,768	94.1	89.0	106	154	—50	47
St. Louis-San Francisco	May	4,547	8,370	175	9,369	10,047	1,519	1,501	227	1,698	1,533	609	346	3,999	8,159	7,966	87.1	79.3	1,210	199	831	1,043
	5 mos.	4,553	44,083	896	49,022	49,105	7,509	7,805	814	8,189	8,295	3,005	1,768	19,767	40,292	39,951	82.2	81.4	8,730	3,127	4,665	4,772
St. Louis-S. Fr. & Texas	May	143	404	....	418	331	31	28	4	25	31	1	22	145	241	258	57.6	77.9	177	64	42	—1
	5 mos.	143	2,196	2	2,281	2,163	149	125	19	141	142	6	111	734	1,202	1,212	52.7	56.0	1,079	418	315	272
St. Louis Southwestern Lines	May	1,554	5,530	....	5,602	5,896	592	589	86	727	649	223	171	1,788	3,467	3,633	61.9	61.6	2,135	974	973	899
	5 mos.	1,554	28,488	1	28,826	27,455	2,886	2,959	396	3,500	3,267	1,072	911	8,964	17,155	17,324	59.5	63.1	11,671	5,266	5,113	4,223
Savannah & Atlanta	May	144	373	....	388	366	69	61	2	71	67	19	17	118	285	269	73.6	73.4	102	37	36	45
	5 mos.	144	1,719	....	1,800	1,668	259	279	9	343	320	96	83	585	1,336	1,291	74.2	77.4	464	190	190	193
Seaboard Air Line	May	4,147	11,800	1,063	13,861	13,795	1,835	1,756	217	2,623	2,512	737	476	5,006	10,617	10,344	76.6	75.0	3,244	1,216	1,622	1,709
	5 mos.	4,147	58,323	6,356	70,418	69,330	8,877	8,678	1,120	12,942	12,609	3,649	2,365	25,035	52,723	51,564	74.9	74.4	17,695	7,937	8,177	8,540
Southern Railway	May	6,267	19,926	985	22,509	22,007	2,988	2,880	366	3,930	3,744	1,028	519	6,905	15,597	15,125	69.3	68.7	6,912	3,190	3,129	3,206
	5 mos.	6,267	98,977	4,632	112,230	111,509	13,978	15,931	1,647	19,397	19,053	5,018	2,545	35,583	77,618	78,579	69.2	70.5	34,612	15,475	15,091	15,166
Alabama Great Southern	May	328	1,132	37	1,309	1,467	298	287	37	289	291	82	42	497	1,236	1,222	94.5	83.3	72	Cr. 40	46	162
	5 mos.	328	5,949	185	6,874	7,167	1,376	1,352	178	1,645	1,568	4,407	208	2,514	6,265	6,094	91.1	85.0	610	406	—164	348
Cinn., N. O. & Tex. Pac	May	337	2,899	73	3,188	3,625	619	595	70	724	667	265	85	895	2,519	2,438	79.0	67.3	669	330	518	761
	5 mos.	337	14,635	397	16,178	17,327	2,978	2,986	354	3,817	3,622	1,208	418	4,542	12,708	12,405	78.6	71.6	3,469	1,585	2,500	3,271
Georgia Southern & Florida	May	397	532	28	645	775	163	118	11	76	78	10	22	272	590	547	91.6	70.5	54	45	—150	17
	5 mos.	397	3,263	161	3,848	4,222	872	696	56	377	402	52	112	1,307	2,954	2,832	76.8	67.1	893	226	—128	298
New Orleans & Northeastern	May	203	745	28	847	1,024	215	194	25	226	205	100	28	264	809	762	95.5	74.4	38	83	5	132
	5 mos.	203	3,749	145	4,253	4,742	968	1,053	118	1,086	1,014	471	137	1,301	3,870	3,874	91.0	81.7	384	418	213	448
Southern Pacific	May	7,984	42,138	1,891	46,412	48,412	5,411	5,471	1,059	10,501	10,140	2,581	754	17,658	36,347	36,562	78.3	75.5	10,065	4,855	4,126	4,540
	5 mos.	8,049	202,226	9,803	224,491	224,095	25,730	25,792	3,234	49,887	47,835	12,829	3,793	83,445	173,017	172,512	77.1	77.0	51,473	26,551	23,358	22,543
Texas & New Orleans	May	4,091	10,614	266	11,510	12,277	1,835	1,950	126	1,730	1,652	196	268	4,120	8,543	8,875	74.2	72.3	2,967	1,226	556	803
	5 mos.	4,092	51,758	1,250	56,144	58,402	8,916	9,826	705	8,385	8,191	1,010	1,240	20,427	41,932	43,456	74.7	74.4	14,212	5,765	2,470	3,418
Spokane International	May	150	284	....	292	294	58	44	3	24	23	10	4	74	171	162	58.5	55.0	121	59	24	34
	5 mos.	150	1,424	....	1,468	1,538	269	231	18	143	146	49	21	354	835	826	66.9	53.7	632	322	188	247
Spokane, Portland & Seattle	May	936	2,633	68	2,920	2,751	495	446	70	443	447	129	36	1,094	2,190	2,090	75.0	76.0	730	242	371	342
	5 mos.	936	12,390	330	13,649	13,712	2,136	2,150	293	2,392	2,332	644	181	5,211	10,539	10,230	77.2	74.6	3,110	1,234	1,347	1,768
Tennessee Central	May	284	367	....	399	348	49	47	7	60	51	21	16	131	283	261	71.1	75.0	115	26	38	26
	5 mos.	284	1,631	....	1,774	1,740	232	208	27	280	265	107	75	621	1,329	1,292	74.9	74.3	444	127	88	136
Texas & Pacific	May	1,828	5,349	299	6,265	6,279	650	939	103	1,075	1,047	278	221	2,533	4,856	5,207	77.5	82.9	1,409	617	441	339
	5 mos.	1,828	26,833	1,422	31,339	31,812	3,567	4,084	495	5,363	5,286	1,399	1,133	12,639	24,537	25,131	78.3	79.0	6,802	2,949	1,665	1,845
Texas Mexican	May	161	300	....	333	329	47	60	6	34	33	11	12	80	196	221	58.9	67.0	137	65	39	25
	5 mos.	161	1,338	....	1,464	1,566	244	293	29	174	167	57	62	406	1,001	1,062	68.4	67.8	463	220	103	110
Toledo, Peoria & Western	May	239	615	....	638	688	76	79	7	52	56	13	53	169	391	407	61.3	59.1	247	111	72	87
	5 mos.	239	3,030	....	3,149	3,164	370	370	34	255	258	67	265	872	1,970	1,949	62.5	61.6	1,179	532	329	366
Union Pacific	May	9,747	34,668	2,159	39,897	43,857	4,664	5,315	702	7,584	8,229	2,406	1,258	14,320	29,991	32,557	75.2	74.2	9,906	6,122	2,028	3,283
	5 mos.	9,745	176,959	9,374	200,832	210,540	23,477	26,124	3,548	38,297	40,777	11,890	6,366	70,955	149,916	157,191	74.6	74.7	50,915	32,165	10,924	14,981
Wabash	May	2,413	8,093	328	9,400	10,645	949	1,366	133	1,348	1,574	478	324	4,291	7,360	8,496	78.3	79.8	2,040	693	449	685
	5 mos.	2,413	40,351	1,893	47,034	50,204	4,668	6,074	596	6,968	7,348	2,366	1,656	21,791	37,342	40,691	79.4	81.1	9,692	3,492	2,155	2,593
Ann Arbor	May	294	661	....	668	778	66	94	6	143	157	45	27	315	572	691	85.7	88.7	96	55	32	5
	5 mos.	294	3,426	....	3,451	3,612	324	421	25	790	790	223	158	1,738	3,119	3,300	90.4	91.4	333	286	—73	—48
Western Maryland	May	841	3,955	....	4,124	4,563	656	590	105	921	846	383	130	1,342	3,263	3,129	79.1	68.6	861	536	637	1,049
	5 mos.	843	19,968	....	20,600	21,475	3,186	2,890	330	4,272	4,170	1,557	619	6,731	15,890	15,544	77.1	72.4	4,710	2,764	3,532	4,450
Western Pacific	May	1,188	4,139	186	4,426	4,655	626	567	80	593	668	157	240	1,656	3,450	3,405	78.0	73.2	976	445	461	567
	5 mos.	1,188	20,340	771	21,598	22,398	2,928	2,487	395	3,447	3,413	1,066	1,286	8,153	17,462	16,338	80.8	72.9	4,136	2,064	1,861	2,994
Wisconsin Central	May	1,031	2,655	20	2,900	3,066	376	400	44	453	488	109	100	1,243	2,333	2,351	80.5	76.7	566	204	131	328
	5 mos.	1,031	12,509	67	13,511	13,506	1,572	1,683	235	2,221	2,359	548	530	5,924	11,011	11,184	81.5	82.8	2,499	989	335	543

a RAILWAY AGE Service Page

40° above to 60° below in 2½ minutes*

...WITH PURECO CO_2 "BLAST CHILLING"



The AFDOUS uniform code being adopted by both states and food chains requiring the maintenance of near zero temperatures for the handling and shipping of frozen foods, creates the need for additional refrigeration techniques.

Pureco Blast Chilling gives quick "pull-down".

Pureco carbon dioxide liquid sprayed into the truck or car reduces interior temperatures to sub-zero in seconds. The warm, moisture-laden air is flushed out and replaced with cold, dry vapor, preventing any "heat shock" from loading temperatures. Time consuming pre-cooling periods are shortened, and after loading pull-down periods of two to four hours are eliminated, resulting in savings in fuel and maintenance.

No special equipment is needed.

Pureco CO_2 *Blast Chilling* needs no special equipment . . . it works with what you now have . . . mechanical units, hold-over systems or "DRY-ICE".

Have a trial Blast Chilling demonstration.

Pureco would like to demonstrate *Blast Chilling* to you in *your plant* under *your working conditions* . . . with no obligation on your part . . . Pureco's Technical Sales Service will make the demonstration and provide any technical assistance you need to help solve your refrigeration problems efficiently and economically with Pureco CO_2. Call your local Pureco man for details or write to:

**Actual Pureco Test*

PURECO CO_2

PURE CARBONIC

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Sampling: Clerical Cost-Cutter

► **The Story at a Glance: Statistical sampling techniques can offer significant administrative cost savings which a number of railroads are making in some areas. More effective use of sampling will require enlargement of areas of agreement among carriers and, in certain cases, approval of the Interstate Commerce Commission. But here are some of the approaches the railroads might take, as outlined recently by Bernie Tecotzky, associate director, management advisory services, Price Waterhouse & Co.**

Railroads are fighting the problem of rising clerical costs in a number of ways—principally through installation of electronic data processing equipment and through adoption of short-cut methods designed to reduce the number of clerical hours required to analyze and report on the voluminous amount of data that is handled every day. Sampling techniques, according to Price Waterhouse's Bernie Tecotzky, can help cut costs in both the EDP and short-cut method areas.

Already, he points out, elements of the industry use sampling in such fields as allocation of passenger and express revenues; studies of interterritorial traffic characteristics; settlement of accounts on interline LCL shipments; and estimation of freight revenues. Sampling is also the basis for the 1 and 01 waybill reporting required by the ICC and the recent study of per diem charges set up by the AAR.

But, Mr. Tecotzky contends, "There are many other areas in the railroad industry where statistical sampling methods can be used to save clerical time.

"Some of these areas require interroad agreement to accept statistical sampling as a basis for the settlements. For example, I think that joint facility accounting and car accounting might lend themselves to these techniques.

"In the traffic department, statistical sampling methods can be used to a greater extent in commodity and cost studies as well as in shipper surveys. I believe the operating department can employ the techniques for obtaining operating statistics and for special studies which are made from time to time."

Use of sampling methods, he points out, is receiving greater recognition from the carriers, and "it's my hope that the ICC will soon recognize these techniques as a valid basis for the railroads to use in determining certain statistics required by the agency. If this becomes a reality, it will certainly contribute to the reduction of many hours of clerical activity." Required operating statistics such as car-mile and ton-mile data, for example, might be obtained through statistical sampling.

Application of sampling plans, Mr. Tecotzky explains, "does not require complicated clerical manipulations. Simple procedures can be used by clerks who can carry out the random selection of the items and the analysis of the items sampled. The interpretation of the results and decisions based on these results can be made by supervisors."

Installation of high-speed electronic computers, he says, does not rule out profitable areas for application of sampling techniques.

"It may appear that sampling techniques would not be warranted in these roads, since these machines can run through the analysis of data with microsecond speed. Why take the risk, when one of these lightning-like machines is available? [But] you don't just press a button on these computers and have the answers flow out. Many hours must be spent in programming and getting the data in proper form so that it can be accepted by the 'monsters.'

"I believe these railroads may still make good use of sampling techniques. For instance, if computer time is not available or preparation of input data for a particular test is costly, statistical sampling might be used to secure a reasonable answer. A computer feasibility study should consider the possible use of these sampling techniques in areas in which the computer is to be used prior to reaching decisions on cost savings, particularly if the savings appear to be marginal."

Mr. Tecotzky concedes that sampling has its dangers and limitations—"some errors must be tolerated in all areas to which sampling is applied; improper design and selection of sample plans or sizes can produce biased and misleading results."

But, he concludes, "in spite of these dangers, statistical sampling techniques —when properly used—are among the most powerful and valuable tools to help reduce administration costs. These tools allow us to maximize the effectiveness of a sample in measuring some feature of the total group, while keeping the associated costs within reasonable limits. Therefore, the possible use of statistical sampling should be investigated as a means of reducing administration costs in the railroad industry."

Dividends Declared

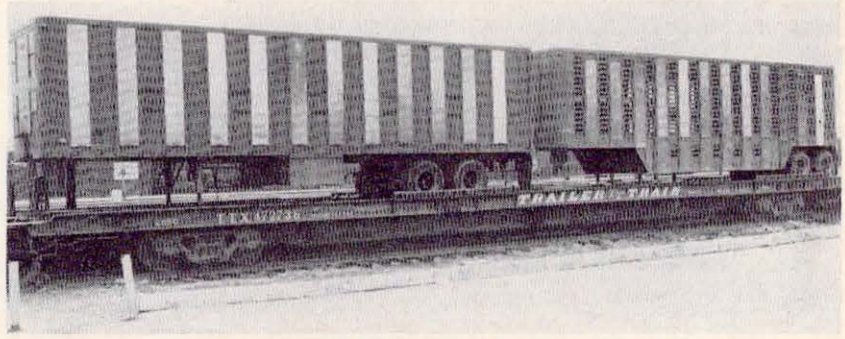
CHESAPEAKE & OHIO.—common, $1, quarterly, payable Sept. 20 to holders of record Sept. 1; 3½% convertible preferred, 87½¢, quarterly, payable Nov. 1 to holders of record Oct. 7.

DAYTON & MICHIGAN.—common, 87½¢, semiannual, payable Oct. 1 to holders of record Sept. 15; 8% preferred, payable Oct. 4 to holders of record Sept. 15.

DOVER & ROCKAWAY.—$3, semiannual, payable Oct. 1 to holders of record Sept. 30.

NEW YORK CENTRAL.—25¢, payable Sept. 9 to holders of record Aug. 11.

PITTSBURGH, FORT WAYNE & CHICAGO.—7% preferred, $1.75, quarterly, payable Oct. 4 to holders of record Sept. 10.



Piggyback: Convertible Livestock Trailers

Livestock by piggyback is now moving from Chicago to New York via PRR in double-duty, 40-ft highway trailers owned by H.R.S. Services, Inc. Next-morning arrival in New York eliminates stops for watering and feeding. Installation of slats converts the livestock trailer to an all-aluminum general merchandise trailer that can be steam cleaned for the return trip. H.R.S. now has three of the units built by Fruehauf (above-left) and 44 of a new drop-center design (above-right) on order from Highway Trailer Co. The drop-center trailer provides 2,890 cubic feet of available shipping space.

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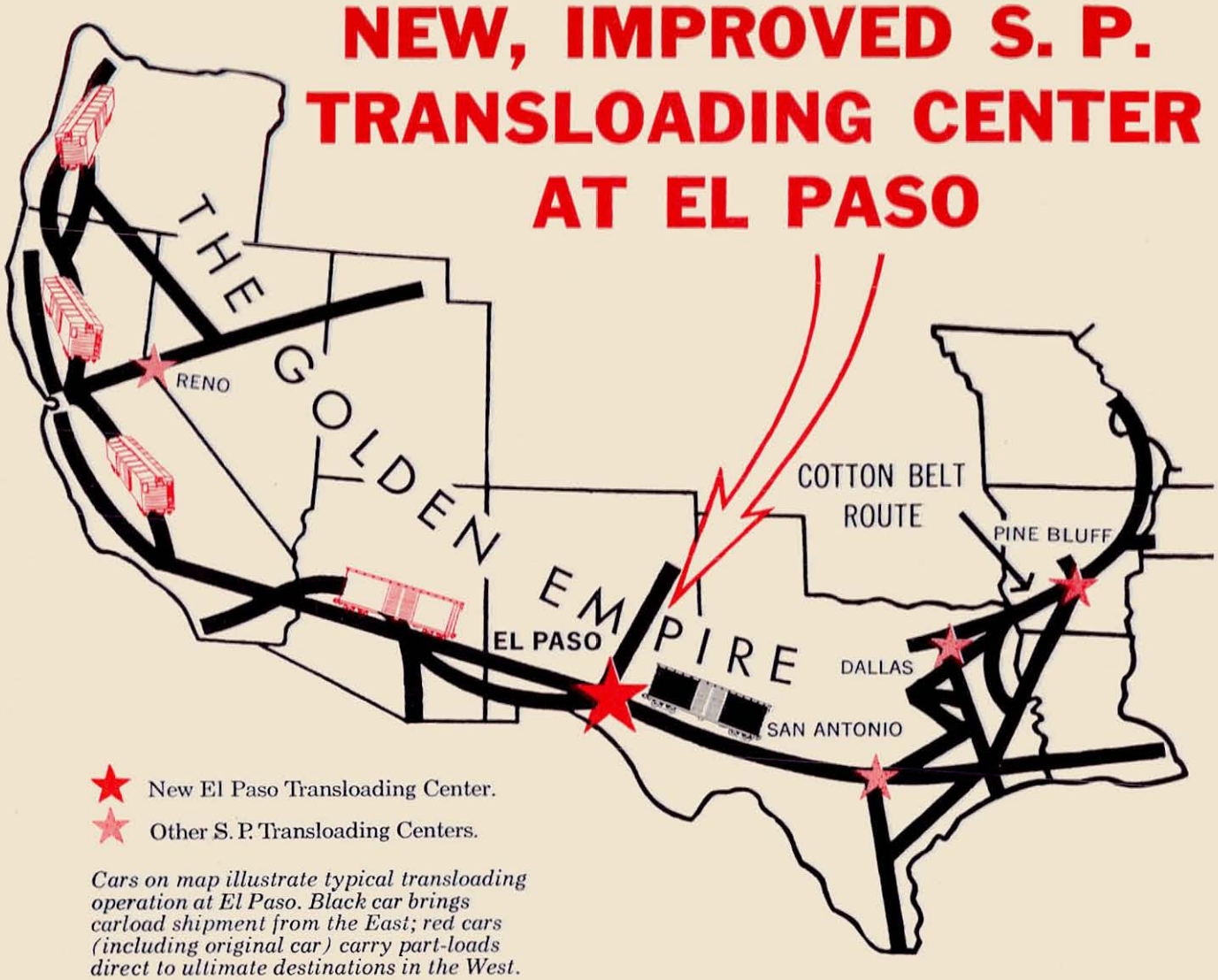

★ New El Paso Transloading Center.

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Cars on map illustrate typical transloading operation at El Paso. Black car brings carload shipment from the East; red cars (including original car) carry part-loads direct to ultimate destinations in the West.

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For more information on how to order and use S. P. transloading service, ask for our new folder on the El Paso Transloading Center—Southern Pacific Company, 65 Market St., Room 733, San Francisco 5, Calif.

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MARKET OUTLOOK *at a glance*

Carloadings Rise 33% Above Previous Week's

Loadings of revenue freight in the week ended July 16 totaled 607,081 cars, the Association of American Railroads announced on July 21. This was an increase of 150,751 cars, or 33.0%, compared with the previous holiday week; an increase of 22,008 cars, or 3.8%, compared with the corresponding week last year; and an increase of 24,837 cars, or 4.3%, compared with the equivalent 1958 week.

Loadings of revenue freight for the week ended July 9 totaled 456,330 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, July 9

District	1960	1959	1958
Eastern	62,989	85,993	71,222
Allegheny	73,416	95,927	75,771
Pocahontas	19,330	20,883	19,167
Southern	76,703	91,157	82,553
Northwestern	83,170	101,536	88,727
Central Western	96,600	109,180	107,652
Southwestern	44,122	47,637	46,474
Total Western Districts	223,892	258,353	242,853
Total All Roads	456,330	552,313	491,566
Commodities:			
Grain and grain products	59,351	63,474	63,399
Livestock	2,708	3,722	3,891
Coal	23,237	25,672	24,721
Coke	5,238	9,294	5,188
Forest Products	27,315	35,488	31,272
Ore	64,185	69,885	52,398
Merchandise l.c.l.	28,611	38,816	41,459
Miscellaneous	245,685	305,962	269,238
July 9	456,330	552,313	491,566
July 2	549,416	574,102	460,345
June 25	641,628	697,797	627,185
June 18	649,830	724,278	628,010
June 11	648,463	709,841	622,686
Cumulative total, 27 weeks	16,146,081	16,820,701	14,783,743

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the holiday week ended July 9 totaled 8,526 cars, compared with 7,742 for the corresponding 1959 week. Loadings for 1960 up to July 9 totaled 284,961 cars, compared with 211,061 for the corresponding period of 1959.

IN CANADA.—Carloadings for the seven-day period ended July 7 were not available as this issue went to press.

New Equipment

FREIGHT-TRAIN CARS

► *Atlantic Coast Line.*—Ordered 50 90-ton, jumbo-type covered hoppers from Pullman-Standard for August delivery. Cars, now being built at Butler, Pa., will cost approximately $750,000.

PASSENGER-TRAIN CARS

► *New York City Transit Authority.*—Will seek $135,473,000 for capital expenditures during 1961, approximately $23,000,000 less than budgeted for the current year. Proposed expenditures include $38,000,000 for purchase of 300 cars for general use on the IRT and BMT main lines, and mechanical upgrading of 200 IND cars; approximately $13,000,000 for expanding facilities to handle 1964-1965 World's Fair traffic, of which $9,600,000 would be used to buy 80 new cars for the Flushing IRT line, the remainder going to improve yard facilities (RA, May 2, p. 31); and $14,400,000 to begin work on a third track on the BMT Jamaica line in Queens.

FOREIGN

► *Argentina.*—Plans to undertake a $302-million emergency railway rehabilitation program, beginning late this year. Program will be completed in three to four years, according to Foreign Commerce Weekly. Plans call for extensive equipment acquisitions, including 150 electric cars, 300 coaches, 100 switching engines, 10 wrecking trains, 10 line locomotives, 220 cranes, and signal and communications equipment.

► *Irish Transport Co.*—Ordered 15 G-8 875-hp diesel-electric locomotives from General Motors Overseas at a cost of approximately $2,000,000. According to GM, this is first order placed by Ireland for U.S.-built diesel-electrics. Delivery will begin in December. The new diesel units will replace steam on both freight and passenger runs.

Purchases & Inventories

► *Four Months' Purchases Up 5.0%.*—Purchases by domestic railroads of fuel, material and supplies in this year's first four months were $25,016,000, or 5.0%, higher than in the comparable 1959 period. Purchase and inventory estimates in following tables were prepared by Railway Age.

PURCHASES*	*April 1960 (000)*	*Four Months 1960 (000)*	*Four Months 1959 (000)*
Rail	$ 6,348	$ 28,165	$ 32,735
Crossties	5,830	20,753	15,154
Other Material	94,939	352,822	305,164
Fuel	27,827	121,399	145,070
Total	$134,944	$523,139	$498,123

*Subject to revision

INVENTORIES*†	*April 1, 1960 (000)*	*April 1, 1959 (000)*
Rail	$ 59,877	$ 61,694
Crossties	77,980	85,943
Other Material	404,120	407,574
Scrap	24,544	23,979
Fuel	19,858	24,321
Total	$586,379	$603,511

* Subject to revision.
† All total inventory figures taken from ICC statement M-125 for month indicated.

a RAILWAY AGE time-saver page

C. Burrows Freeman
B&O

Harry Life
CNR

W. Bradley Gilkey
Sparton

Kenneth E. Martin
Sparton

People in the News

BALTIMORE & OHIO.—**C. Burrows Freeman,** general freight agent, New York, named freight traffic manager there, succeeding **Everett D. Davis,** who retired July 15.

BELT OF CHICAGO.—**Charles L. Poole,** assistant to president and general manager, retires July 30.

CANADIAN NATIONAL.—**Harry Life,** operations superintendent for central and eastern Canada appointed superintendent telegraphs for the Maritimes at Moncton, N.B., succeeding **Hugh Marquis,** retired.

Emerson J. Pugh, field sales trainee, Moncton, promoted to assistant to passenger traffic manager. **C. R. Hawthorne,** senior research assistant, traffic department, named passenger sales analyst, Moncton.

Kenneth P. Letterick, city freight agent, Fredericton, N.B., appointed assistant to general freight agent, Moncton.

CHICAGO & NORTH WESTERN.—**J. A. Barnes** appointed assistant engineer of track, Chicago.

DENVER & RIO GRANDE WESTERN.—**Charles D. Brainard,** assistant to the freight traffic manager, appointed assistant general freight agent.

GREAT NORTHERN.—**John N. Supple,** city passenger agent, Chicago, appointed district freight and passenger agent, Cleveland, succeeding **F. L. Cobb,** who retired June 30.

GULF, COLORADO & SANTA FE.—**B. O. Bernard** appointed superintendent, Northern division, Fort Worth, Tex., to succeed **O. D. Crill,** retired.

L. B. McCune named assistant signal engineer, Galveston, Tex., replacing **R. B. McKithan,** retired.

ILLINOIS TERMINAL.—**Earl L. Keister** elected president and a director, effective July 1, to succeed **Fred L. Dennis,** retiring (RA, July 4, p. 34). Mr. Keister was formerly executive assistant, Terminal Railway, Alabama State Docks, Mobile, Ala.

George E. Lee, general counsel, St. Louis, elected vice president.

MONON.—**Robert E. Martin,** general agent, Chicago, transferred to Minneapolis, succeeding **I. C. Holmes,** resigned. **G. Harvey Kitson** succeeds Mr. Martin.

NEW YORK CENTRAL.—**Robert S. Eisenhauer,** director of public relations and advertising of the NYC at New York, appointed director of public relations and advertising of Textron Inc. at Providence, R.I., effective July 25.

R. B. Hasselman appointed general superintendent of yards and terminals, New York.

Donald J. Kays, terminal operations analyst, appointed supervisor—freight sales and service.

Supply Trade

Offices of **Peerless Equipment, Division of Poor & Co.** have been moved from 332 South Michigan Avenue to Suite 1310, Railway Exchange Building, 80 East Jackson Boulevard, Chicago 4.

H. J. Urbach, executive engineer, **Timken Roller Bearing Co.,** Canton, Ohio, has been named director of engineering. **Ralph E. McKelvey,** assistant chief engineer, Physical Laboratories, has been promoted to assistant director of engineering.

W. Bradley Gilkey, central regional manager, **Sparton Railway Equipment Division of Sparton Corp.,** has been promoted to the newly created position of supervisor of marketing services for the United States, at Detroit, Mich. **Kenneth E. Martin,** western regional manager, succeeds Mr. Gilkey, with regional offices transferring from Detroit to Chicago.

OBITUARY

Walter A. Bergen, assistant to president, **Symington-Gould Co.,** Division of Symington Wayne Corp., New York, died June 30.

Russell A. Erickson, 53, director of public relations, **Lehigh Valley,** drowned in the ocean at Fort Lauderdale, Fla., on July 14.

Guy P. Palmer, 77, retired regional engineer, **Baltimore & Ohio,** died July 16 in Hinsdale Sanitarium, Hinsdale, Ill.

Industrial Traffic

Stephen F. McDermott has been appointed traffic manager in charge of transportation for the **American Car & Foundry division of ACF Industries, Inc.**

Burt R. Osterman has been appointed regional traffic manager for **Pennsalt Chemicals Corp.**, Tacoma, Wash. Before joining Pennsalt in early 1959, Mr. Osterman served in the traffic department of the **Southern Pacific.**

In connection with a number of other changes, **D. B. Voorhees,** manager, operations division, Supply department, **Esso Standard,** Division of Humble Oil & Refining Co., has been named manager, Foreign division, Traffic department, succeeding **P.B. Harman.**

Richard J. Mollica and **Wray C. Winger** have been appointed assistant general traffic directors, **Chevrolet Motor division, General Motors Corp.** Mr. Mollica was formerly assistant to traffic director and Mr. Winger was traffic manager, Chevrolet Detroit Gear & Axle Plant. **A. Harold Durocher,** assistant to traffic director, appointed general traffic manager, Detroit central office. **Delmer C. Bennett,** operations supervisor, named traffic manager, central office. **Robert E. Hatfeld,** assistant traffic manager, Chevrolet's Corvair assembly plant, Willow Run, Mich., succeeds Mr. Bennett.

James J. Cordo, rate specialist, **United States Gypsum Co.,** has been appointed assistant eastern traffic manager, New York, succeeding **H. Lee Huffman,** who has been named Southeastern traffic manager at a newly opened office at 3330 Peachtree Road, N.E., Atlanta, Ga.

Robert W. Reneker, vice president and director of **Swirt & Co.,** Chicago, has assumed supervision of the Purchasing and Transportation departments, succeeding **E. A. Moss,** vice president, who retired June 23.

Raymond N. Rear, assistant general traffic manager, Central traffic department, **Borden Co.,** has been named general manager of a newly created Traffic department of the **Borden Chemical Co.**

Nicholas Fucci, superintendent of transportation and warehousing, **Permacel,** New Brunswick, N.J., has been appointed distribution manager for **Stahl-Meyer, Inc.,** New York.

The General Traffic Department of **Union Carbide Corp.** has moved to the new Union Carbide Building at 270 Park Ave., New York, and has been reorganized into two divisions—Traffic Management and Transportation Operations. **E. A. O'Brien,** continuing as senior assistant general traffic manager, will be directly responsible for Traffic management functions and will supervise activities of traffic managers and their staffs. **R. J. Cunningham** is traffic manager for alloys and metals, calcium carbide, lime hydrate, ores, industrial gases and welding apparatus, and carbon products. **W. E. Morgan** is traffic manager for chemicals, olefins (except calcium carbide and lime hydrate), and pyrofax gas. **V. F. Treadwell** is traffic manager for plastics (including film and food casings), consumer products, anti-freeze, silicones, nuclear matters, and the inland U.S. portion of international shipments. **V. G. Wilson** is assistant traffic manager in charge of rate analysis and research for all raw materials and products. **P. J. Wellnitz** is traffic manager, Pacific Coast region, 22 Battery Street, San Francisco 6, Cal.

Frank C. Tighe has been appointed assistant general traffic manager and will have charge of Transportation Operations. **K. O. Smart** is manager of railroad operations, including private cars. **R. L. Juillerat** is manager of highway transportation. **L. S. Truslow** is manager of marine operations and marine terminals. **W. I. Neyland** is manager of warehousing, household and office moves, and small shipment operations. **R. R. McNickle** is manager of distribution cost analysis and research. **A. J. Fenaroli** is manager of pipe line operations, piggyback and special projects.

E. R. Rista is administrative assistant to general traffic manager.

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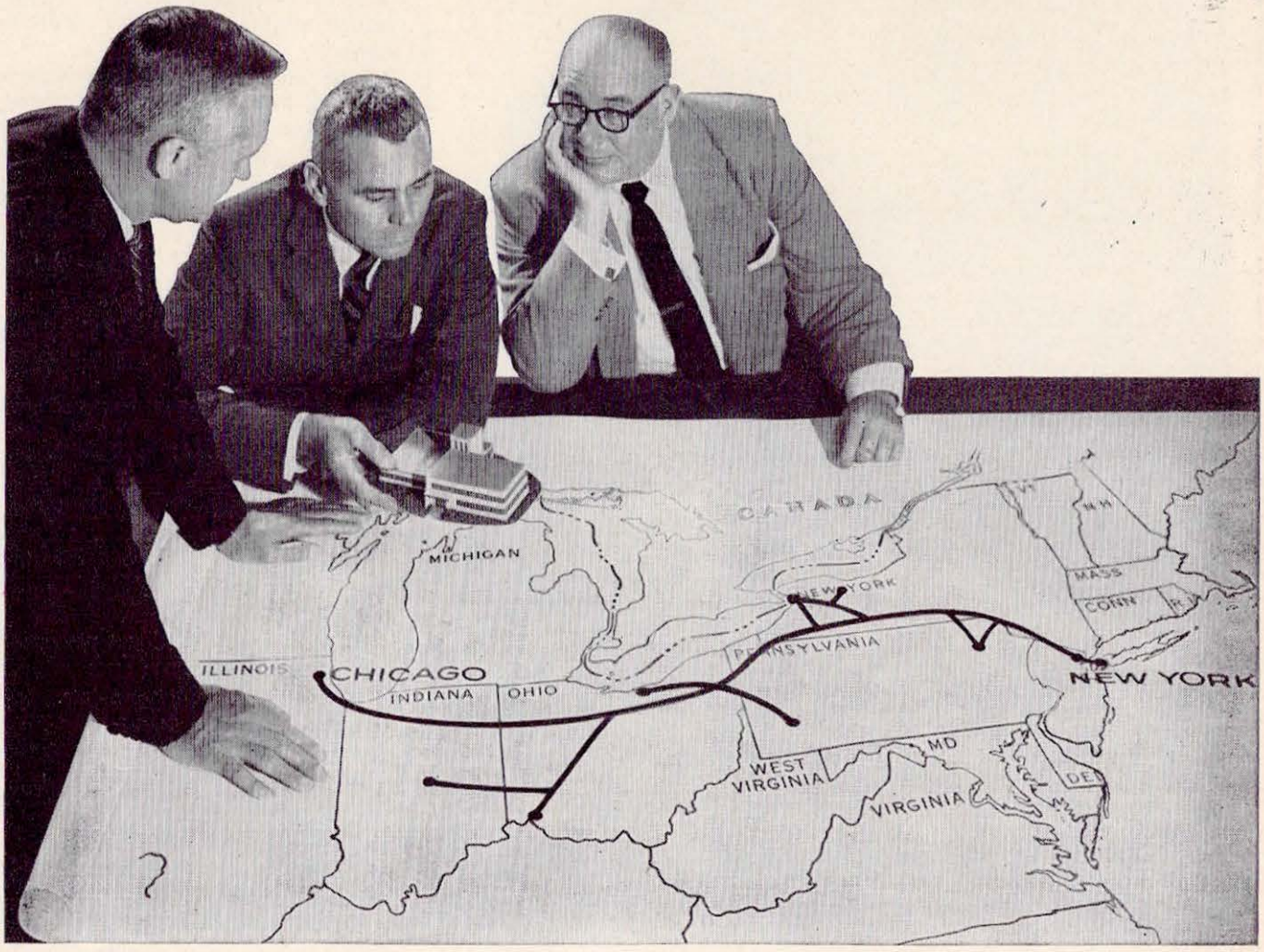

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They have—or they'll quickly prepare—information you need about any location in the industrial area served by the Erie Railroad. They will work with you to help select the location that best meets your company's requirements. They can give you facts on taxes, labor supply, availability of water and utilities, housing and recreational facilities, accessibility of markets or sources of supply, and other vital facts. And they'll help you arrange any special facilities you need to coordinate Erie's dependable rail service with your operations.

These Erie specialists, along with those of every other department, welcome the opportunity to demonstrate Erie's complete **customer service**—the brand of service we think is essential in providing the ultimate in efficient rail transportation. To enlist their help on your plant location problems, call or write: D. M. Lynn, Asst. V. P., Industrial Development, Room 521, Midland Bldg., Cleveland 15, Ohio.

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Dependable Service For The Heart Of Industrial America

L&N Opens New Birmingham Station

L&N's new Birmingham passenger station is now in use. The building, of modern, functional design, has 32,000 sq ft of floor space. Its second floor will be devoted to various L&N administrative and traffic offices in the city. It is completely air conditioned.

Ops Close Ranks In Rules Fight

An industry proposal to handle the fireman-off issue separately with the BLF&E in talks beginning July 19 was rejected by the brotherhood. A companion proposal to start combined negotiations on other work rules revisions Aug. 2 was also turned down.

In a letter to the Carrier Conference Committees, signed by the chiefs of the five operating organizations, the carriers are requested to delay opening of the rules talks at least until Sept. 7.

In requesting postponement of the talks, the chiefs termed the carrier rejection of a union-proposed tri-partite wage structure study commission a hasty reaction "which leaves us without a real explanation" and asked for "a genuine written explanation of your rejections."

The union letter continues: "In any event, it is our considered opinion that the carrier notices of Nov. 2, 1959, are so broad and interrelated, including the notice proposing the elimination of firemen, that they affect all the employees represented by the organizations here involved. Accordingly, it would be our purpose to handle in joint negotiation all carrier proposals set forth in their notices of Nov. 2, 1959, the organizations' proposal of July 6, and any other proposals that have been or may be submitted on a national basis in behalf of the employees."

The letter was signed by Guy L. Brown (BLE), J. A. Paddock, (ORC&B), H. E. Gilbert (BLF&E), W. P. Kennedy (BRT) and Neil P. Speirs (SUNA).

The first meeting between the carriers and union spokesmen ended in carrier rejection of the featherbed study-group proposal made by the organizations. In turn the unions rejected the carrier offer to submit the bargainable points at issue to an independent study commission having authority to return a finding that would be binding on both parties.

While the carriers are now seeking to progress the rules talks within the framework of the Railway Labor Act, they have left the door open for a study group. The conditions under which the carriers would accept a study group approach to the rules revision problem include these:

- A study must include public members—impartial, independent citizens whose conclusions will be respected by all parties.
- It must deal with the whole basic problem of featherbedding in train operating positions, not with isolated aspects of the problem.
- It must deal with featherbedding itself and not become enmeshed in extraneous or unrelated issues which are better solved in direct bargaining.
- It must have a reasonable time limit on its deliberations to avoid indefinite postponement of urgently needed relief from wasteful inefficiencies.
- It must be able to recommend solutions to the problem, not merely study what the problem is all about.
- The recommendations for solutions must be binding—to avoid leaving the issue in mid-air upon the study's completion and expecting direct bargaining to pick up all over again from the beginning.

The study commission proposed by the unions would have no limitation on the scope of its inquiry nor would it have authority to recommend binding solutions to the complex work rules proposals.

The carriers are urging major revisions of many costly featherbedding rules that pre-date technological advances within the industry. Management's attempt to achieve a fair day's work for a fair day's pay seeks elimination of:

- The 40-year old dual pay standard for engine and train crews.
- Present crew-change points.
- The arbitrary division of work performed by road and yard employees.
- Unneeded firemen on yard and road freight diesels.
- Excess crewmen.
- Standby operating employees for self-propelled work equipment.

In the remaining unresolved wage disputes, both the non-ops and the Switchmen's Union of North America resumed conferences last week seeking to iron out differences of opinion on emergency board recommendations in their separate wage demands.

A break in the SUNA wage case came with the announcement, last Thursday, that the union and the railroads had agreed to submit to the rank and file of the Switchmen a proposal calling for a settlement along the lines of the pattern already accepted by the other operating unions. This calls for a 2% increase July 1, 1960, and a further 2% increase March 1, 1961.

Non-op conferences resumed July 20 as both sides continued to pore over the 100-page report handed down by an emergency board on June 8. It recommended a five-cent an hour pay increase for the 11 non-operating unions effective July 1, and negotiated improvements in fringe benefits.

Board Rejects Radio Arbitrary

► **The Story at a Glance: A recommendation that BLE withdraw its demands for an arbitrary payment to engineers operating locomotives equipped with radio telephones—as well as demands for a guarantee to extra engineers—was the principal finding of an emergency board which investigated the ATSF-BLE dispute. The board's report analyzed 11 points of contention in detail; recommended to the engineers that eight be withdrawn completely and that two more be withdrawn after minor changes had been made in agreements. (The 11th item was withdrawn by the brotherhood during the hearings). BLE's Guy L. Brown called the report "about as unfair as it could be."**

The emergency board created by the President to investigate the dispute between the Coast Lines of the Atchison, Topeka & Santa Fe and Santa Fe employees represented by the Brotherhood of Locomotive Engineers came up with a report that rejected BLE demands on almost every point. The board, however, took note in its conclusion that it had no power to adjudicate the issues.

"We are cognizant of our responsibilities" under the Railway Labor Act, the board said, "only to recommend terms of settlement."

Two of the eleven items in dispute—proposals for an arbitrary payment to engineers operating radio-telephone-equipped locomotives, and for engineers on the extra board—were the real "stumbling blocks to a negotiated settlement," the board said, adding: "We are also mindful that the carrier has offered, in an attempt to settle the dispute, more than we can justify on any reasonable or common sense basis on some of the other issues.

"Our investigation has led to a firm belief that, absent the radio-telephone and extra board guarantee proposals, the remaining items would be readily resolved on bases already discussed between the parties or suggested [in the board report].We have found those two proposals to be wholly unjustifiable."

The board recommended:

"1) That the organization withdraw forthwith its demands for an arbitrary payment to engineers operating locomotives equipped with a radio telephone and for a guarantee to extra engineers.

"2) That the parties then meet and resolve the other issues by agreement."

Grand Chief Guy L. Brown of the BLE called the emergency board's report "about as unfair as it could be." He added: "The board either didn't understand what we were saying or we didn't get our points across. I wasn't surprised at the report in view of the personnel of the board. Quite a while ago the BLE protested the appointment of [Dudley E.] Whiting as a member of any emergency board." (Mr. Whiting, chairman of the board, is a Detroit attorney and arbitrator.)

The brotherhood proposal asking for arbitrary payment for radio-equipped locomotives read, specifically:

"Engineers in all classes of service required to operate engines, or motor power, equipped with radio-telephone facilities will be paid three hours at the overtime rate for class of engine used, in addition to all other allowances paid for the day or trip."

Commenting on this, the board said, noting a few exceptions, "The use of the radio-telephone on locomotives has become prevalent on most American railroads. In general, the industry, including this carrier, has never paid additional compensation to locomotive engineers for the use of that equipment."

The board summarized the brotherhood position as contending that the radio benefited the Santa Fe and also required the engineer to perform new work as well as subjecting him to annoyance from radio noise.

The board agreed that "this improved communications facility has benefited the carrier," and added: "There is no question that it has helped make railroad operation more efficient and safe. The fact that the carrier has been benefited, however clear it may be, is not standing alone an appropriate basis for additional compensation to employees. The equipment was installed at carrier's expense and the resulting contribution to carrier's service is attributable to capital investment rather than to any change in the engineers' functions."

Among other points, the board noted that the dual system of pay based on both mileage and time spent on the job "insures engineers increased pay opportunities or leisure time with faster train movement due to the use of the radio-telephone [excepting yard engineers who have a different basis of pay]."

The board pointed out that its discussion of arbitrary payments for radio rejected the idea on the basis of use of radio by the engineer. It added that the brotherhood proposal "was worded to require payment to an engineer who operates an engine equipped with a radio telephone, whether or not in use.

"Such a proposal could not, of course, be justified on any ground."

Billing by Tape Foreseen

"It seems reasonable to expect that some day before too long we will receive tape instead of typewritten bill of lading, and that we will supply cards or tapes that could be introduced directly into the internal processing systems of others in lieu of bills for services performed . . ." This prediction was made by E. A. Leslie, CPR vice-president, accounting, at the 1960 Transportation Management Program at Stanford University. In discussing the new "tool," Integrated Data Processing, he looked forward to:

- New hardware that is faster, simpler to operate and integrate with other equipment, and more reliable. Particularly needed: a "new basis of recording at the source which does not involve manual preparation of a written record and a second operation to produce cards or tape. Present devices to accomplish this are very expensive."
- Communication facilities, already becoming available, that can transmit data "one hundred times faster", and reduce the chance of error.
- The present tendency to centralization with one large computer being "neutralized or reversed through a more widespread use of the smaller computers . . . to process and refine data before it reaches the high speed computer."

Mr. Leslie continued: "In terms of organization, dramatic developments are possible. The counterpart [of Henry Ford's industrial revolution] in the current revolution in management may not yet have been enunciated. It seems certain," Mr. Leslie said, "that good progress [in the use of the new tools] will continue to be made by individual corporations internally. Difficulties of integration externally probably will increase in geometric proportion to the area covered. Within the transportation industry, there is room for a reduction in the tremendous amount of paper exchanged and duplication in work performed. A natural and obvious development is that this exchange of paper should be replaced by the exchange of machineable records in the form of punched cards, punched paper tape or magnetic tape—preferably the latter."

You Ought To Know...

Republican platform makers have been urged by the Transportation Association of America to include a plank in the 1960 platform in support of a "strong, efficient, privately owned and operated and soundly financed system of for-hire transportation." The proposal, made by Robert B. Johnston, vice president of the First National Bank of Chicago and a TAA director, is similar to one made by TAA President George P. Baker before the platform committee of the Democratic National Committee.

Railroads participating in missile-train tests out of Ogden, Utah, are "going all out to help us make this idea work," an Air Force spokesman said last week. He made the comment on completion of a second run that took the test train through Utah, Wyoming, Nebraska, South Dakota, Montana and Idaho. Test objectives were "satisfactorily met." Four additional test runs are scheduled.

Cash dividend payments by railroads in the first six months of 1960 totaled $184,300,000. For the corresponding period of 1959, railroads paid out $202,000,000 in dividends. For all industry, 1960 dividends paid in the first six months were $6,576,000,000, compared to $6,182,000,000 in the corresponding 1959 period.

Fines totaling $87,650 were paid during this year's second quarter by 50 railroads for violations of the Safety Appliance, Hours of Service, Accident Reports, Locomotive Inspection and Signal Inspection acts. Biggest payer, according to the ICC, was the Milwaukee, assessed $17,050. Next, in turn, came the Nickel Plate, which paid $7,500, and the North Western, which paid $6,750.

Production of butt-welded rails was started June 20 at Matisa Railweld's new fixed plant at Bessemer, Ala., according to Robert P. Underwood, vice president and general manager. The plant will be formally dedicated on July 28. It will butt-weld new rail produced by the rail mill at Insley, Ala., of U. S. Steel's Tennessee Coal & Iron Division. It is operating on a two-shift basis, producing quarter-mile strings of rail for the Frisco and the Central of Georgia, said Mr. Underwood.

Quarterly reports rather than monthly, proposed by the ICC on May 16 to take effect with the filing of reports for the year 1961, got support from the AAR and opposition from RLEA, in statements filed with the ICC. AAR called quarterly reports more valid and meaningful, as well as entirely adequate for investment and regulatory purposes. RLEA argued that monthly data "has been essential to many purposes of the railway organizations" in legislative presentations, in collective bargaining and in safety and discontinuance proceedings.

Operating officers will assemble in Portland, Ore., Aug. 4-5 for the annual West Coast meeting of the Superintendents Association. L. W. Albertson, vice president of SP&S, and R. Scearce, traffic manager, Hood River Apple Growers Assn., share speaking assignments.

Railroad accidents in May resulted in the deaths of 14 employees on duty and injuries to 974 employees. This compared with seven employee fatalities and 1,095 employee injuries in May 1959, according to the ICC's preliminary survey. Eighty-five employees were killed and 5,522 injured in this year's first five months. Comparable figures for 1959 were 73 and 5,594, respectively. In May's train and train-service accidents, three passengers were killed and 107 were injured, compared with no passenger fatalities and 102 injuries in May 1959. Passenger fatalities in this year's first five months totaled 24, compared with six in the first five months of 1959.

Most of the 55,000 Boy Scouts attending the Golden Jubilee Jamboree at Colorado Springs came by train. A first-in, first-out shuttle service brought early arrivals three days ahead of the July 22 opening. Latecomers will return three days after the jamboree ends July 28. Extra Burlington trains brought in over 14,000 scouts. Another 6,000 rode the Santa Fe, 3,000 came via the Rock Island and the Milwaukee handled another 2,000. Virtually every railroad in the country funnelled campers to the Colorado campsite.

Steam refuses to quit on the GTW. Ironhorse fans will ride behind No. 6322 on a trip from Chicago to South Bend Aug. 7. The venerable 4-8-4 made the last scheduled steam run on the GTW last March but railfans prevailed and the steam locomotive was saved from the scrap heap and will be kept serviceable for special excursions.

Abandonment of a 26-mile IC branch line would produce only "negligible" savings compared to the railroad's total operating income, says ICC Examiner Bradford. Partly because of this reasoning he advises the Commission to deny IC's application to abandon its little-used branch line between Phillip and Charleston, Miss.

Nominations for the annual Seley Awards of the Transportation Association of America will be received until Sept. 30 by the selection committee chairman, Donald G. Ward, at the TAA office, 1710 H St., N. W., Washington 6, D. C. The "distinguished service to transportation" award carries a gold medal for the winner and a $1,000 transportation scholarship to the college of his choice, plus an additional $1,000 to the college.

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First report on U. S. railroaders' trip to Russia.

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To Increase Traffic and Earnings—

There are five steps—all equally important—needed to give railroads the volume of freight to which they are economically entitled, viz.:

(1) Service as dependably regular and fast as is consistent with reasonable operating economy;

(2) Rates adjusted with great care and skill, based on accurate and comprehensive knowledge of railroad and competitors' costs and volume of tonnage available—to attract to railroads all the business they can handle profitably;

(3) Relentless effort to reduce railroad operating costs (e.g., by eliminating obsolete and duplicate facilities, and wasted manpower), and reflection of these savings in competitive rates;

(4) Facilitating interchange of traffic between different methods of transportation (i.e., by piggybacking, containerization, and "diversification" of railroads into other types of transportation);

(5) Giving railroad freight sales forces all of foregoing sales advantages, *plus* full information about them, and skilled sales managership.

•

What percentage ratio on each of these five points would you assign (a) to railroads as a whole, (b) to the railroads of your territory, (c) to your own railroad?

Probably no one railroad or group of railroads would be entitled to a a 100% rating on all five points. And that fact is reason for optimism—because, if railroads are holding their own in as many places as they are, with performance short of 100%, then improvement in their performance ratio would surely greatly improve earnings.

•

On none of the foregoing five points is achievement of understanding and agreement as difficult as in (2)—rate-making. In our May 30 issue we ventured to set forth a half-dozen points appropriate for consideration in rate-making. These points may be summarized as follows:

A floor under each and every freight rate—at a slight fraction above railroad direct costs.

A ceiling over each and every freight rate (railroad direct costs permitting) which would be a figure slightly below the probable cost of that movement by an efficient truck operation.

Value of service to be given weight in fixing freight rates to the degree that competition permits—but bearing in mind that "ability of the shipper to pay the bill" is no longer the yardstick that measures value of service. The yardstick on value of service, now, is ability of the customer to get lower transportation costs from another type of carrier.

Present elaborate commodity classification no longer practicable or defensible, since private transportation (the ultimate competitor) classifies freight only on a basis of its cost of handling.

"Market relationships"—rates made to support customers' pricing policies—are justifiable, now, only when they demonstrably serve to build railroad traffic and earnings.

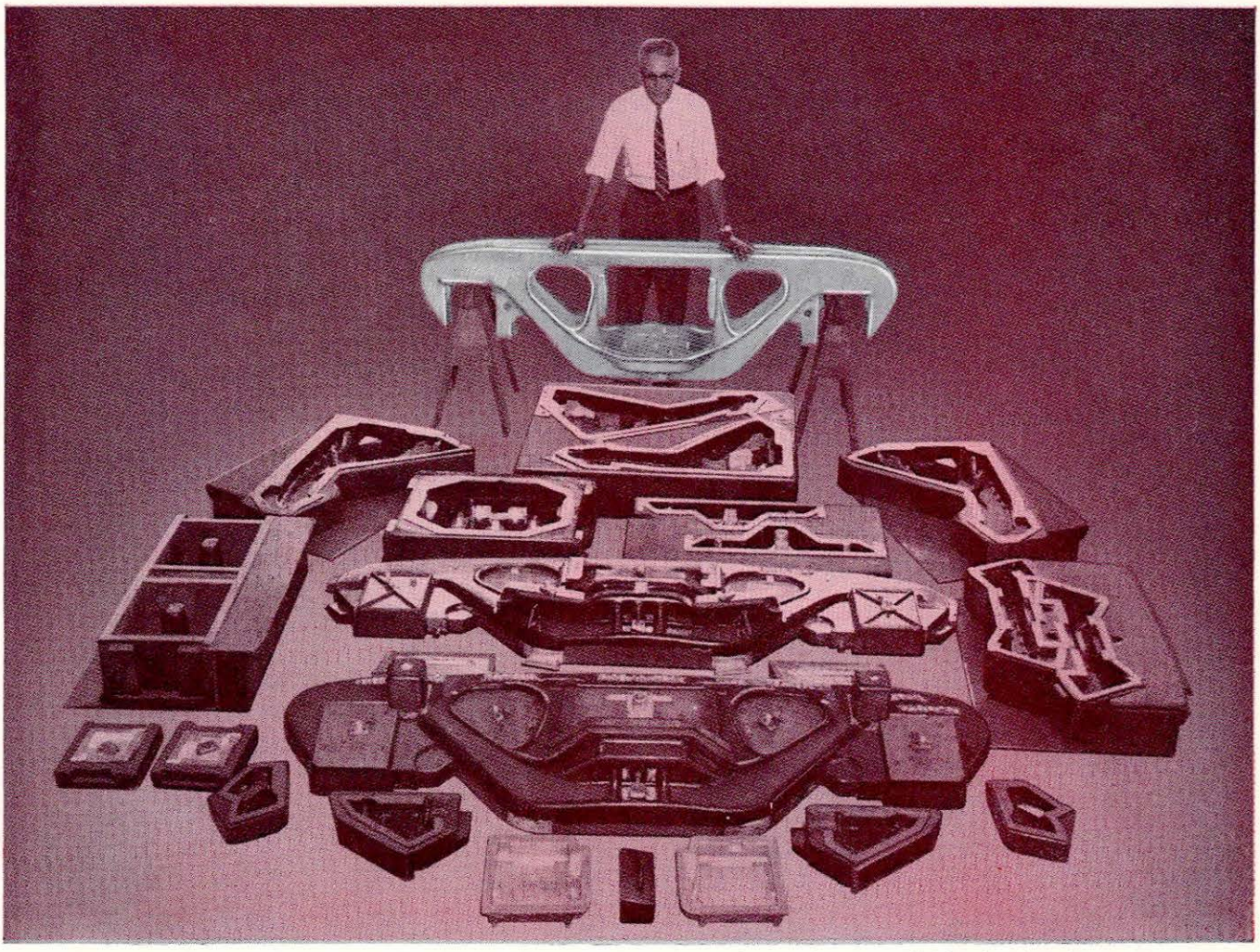
•

In our May 30 discussion we invited comment and criticism, and so far we have got more approbation than argument. One chief executive doubted that any basis of freight classification except relative handling costs can be sustained. A traffic vice president believed we overemphasized the importance of the cost factor in rate-making. His railroad handles a large tonnage of staple commodities where competition of other types of transportation is not too important. The critical factor with him is the strength of the market competition of the commodities he originates with those originating elsewhere.

(We believe a railroad is justified in promoting the market position of its customers to the degree that such a policy strengthens the railroad's earnings. But a railroad is not justified in protecting markets for products moving largely by other types of transportation.)

•

Some railroad people find the prolonged discussion of rate-making practices little to their liking. They would prefer to solve the traffic and earnings situation by attention to the other four points we have listed. Unfortunately, however, unless the rate-making problem is solved successfully, no amount of attention to the other four points will give railroads the traffic and earnings they must have in order to prosper and grow.



Elmer Clements, superintendent of Symington's pattern shop, looks over a finished pedestal type side frame casting, together with the pattern and core boxes required for its production.

What It Takes to Make a Side Frame

Producing the pattern for a railroad freight car side frame involves much more than translating dimensions from an engineering drawing. For example, molten steel shrinks as much as ¼ inch per foot during solidification. Also because cooling rates vary, it may twist or warp, requiring allowances to be made in the pattern and core boxes to produce an acceptable casting. The solution to these problems is the direct responsibility of Symington's patternmakers, whose skillful art is the result of a minimum apprenticeship of 10,000 hours.

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